IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA
AT CHARLESTON

THE CITY OF HUNTINGTON,	:	Civil Action
Plaintiff,	:	No. 3:17-cv-01362
v.	:	
AMERISOURCEBERGEN DRUG CORPORATION, et al.,	:	
Defendants.	:	
CABELL COUNTY COMMISSION,	:	Civil Action
Plaintiff,	:	No. 3:17-cv-01665
v.	:	
AMERISOURCEBERGEN DRUG CORPORATION, et al.,	:	
Defendants.	:	

BENCH TRIAL - VOLUME 29
BEFORE THE HONORABLE DAVID A. FABER, SENIOR STATUS JUDGE
UNITED STATES DISTRICT COURT
IN CHARLESTON, WEST VIRGINIA

JUNE 17, 2021

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PROCEEDINGS had before The Honorable David A. Faber, Senior Status Judge, United States District Court, Southern District of West Virginia, in Charleston, West Virginia, on June 17, 2021, at 9:00 a.m., as follows:

THE COURT: Mr. Farrell, are you ready to go?

MR. FARRELL: Yes, I am, Your Honor. Thank you. The plaintiffs call Dr. Thomas McGuire. M-c-G-u-i-r-e.

THE COURT: Mr. McGuire, if you will come up here, the clerk will give you the oath.

COURTROOM DEPUTY CLERK: Please state your name.

THE WITNESS: Thomas McGuire.

COURTROOM DEPUTY CLERK: And please raise your right hand.

DR. THOMAS MCGUIRE, PLAINTIFF WITNESS, SWORN

COURTROOM DEPUTY CLERK: Thank you. Please be seated.

THE COURT: Good morning, sir.

DIRECT EXAMINATION

MR. FARRELL:

Q. Good morning. Would you please state your full name for the record?

A. Thomas McGuire.

Q. And, Dr. McGuire, what is your profession?

A. I'm a health economist.

Q. And where do you practice health economics?

A. I work in the Department of Healthcare Policy at Harvard Medical School.

Q. Would you mind taking your microphone and kind of tilting it up a little bit?

A. Like this? How is that?

Q. Okay. So, you are a health economist. Would you please tell the Court, what is a health economist?

A. Well, a health economist is a PhD in economics and they specialize in the economics of the healthcare industry, the pharmaceutical industry, hospitals, doctors, health insurance companies.

Q. And so, what is your actual academic position at Harvard?

A. It's -- the title is Professor of Health Economics.

Q. And so, what does -- what do your job responsibilities include?

A. They include teaching and research. I teach a course in the spring for graduate health economic students and then I conduct research.

Q. Okay. So, let's back up a little bit now and talk about your educational background. Where did you go to school and what degrees did you earn?

A. My college education was Princeton, Economics, 1971. My PhD was Yale, 1976, also in Economics.

Q. And after your doctoral degree, did you do any postdoctoral research?

A. I -- I did. I was a postdoctoral National Institute of Mental Health Research fellow at Yale between -- in the academic year '80-'81.

Q. Okay. After your educational accomplishments, what did you do next?

A. Then I went to work. My first job was at Boston University in the Department of Economics. I worked there for 25 years. I worked in health economics that entire time. And then, in 2001, I moved to the Department of Healthcare Policy at Harvard Medical School, where I guess I've been now for 20 years.

Q. Are you a member of any organizations?

A. I'm a member of the National Academy of Medicine, which used to be called the Institute of Medicine, and then several professional organizations.

Q. All right. So, let's talk about what's formerly known as the Institute of Medicine. What is that?

A. It's a national body that is, I would say, honorary membership. If a scientist, or practitioner, administrator has had a distinguished career they would be nominated for the Institute of Medicine. They would be elected by the members. And then, part of the duties of an Institute of Medicine member is to research at the request of Congress

and sometimes other parties and to do it for no pay.

Q. So, and I asked you this question in a simpler way, I'm sure, but health economists, do you all have your own professional organization?

A. We do. There is an International Health Economics Association and then there's an American Society of Health Economists. I'm a member of both of those.

Q. All right. And I promised not to embarrass you, but I'm going to point out, is there any recent award that you received from your organization that you're particularly appreciative of?

A. Yes, there is.

Q. And what is that?

A. This was 2018. It was from the American Society of Health Economics and it was a Lifetime Achievement Award.

Q. Now, and in addition, is your -- do health economists have a particular journal that publishes papers?

A. Yes. There's the Journal of Health Economics, which is generally regarded as the most prestigious journal in health economics. There are others that also publish health economics papers.

Q. And do you have any affiliation or have you worked with this journal in the past?

A. I was an editor of the journal for ten years beginning, I don't know, 2002 or something.

Q. All right. And without belaboring the point, you are published?

A. Yes.

Q. And approximately how many papers and textbooks or texts have you published?

A. I would say authored or edited maybe ten or so books and 250 papers, something like that.

Q. Now, you said that you conduct research and over your ex -- distinguished career -- not extinguished career.

A. Be careful.

Q. Strike that from the record.

(Laughter)

BY MR. FARRELL:

Q. Over your distinguished career, can you tell the judge a little bit about some of the notable sources of funding you have received for your research?

A. Okay. I would say the primary source of funding has been the National Institute of Health and that's comprised of separate agencies such as the National Institute of Mental Health, that helped pay for my post-doc, that I've led a number of research proposals through that agency. The National Institute of Alcohol and Alcohol Abuse, the National Institute of Aging, and the National Institute of Drug Abuse, all a part of National Institute of Health, and then there's also been private foundations.

Q. Very good.

MR. FARRELL: Judge, at this point, I would ask the Court to acknowledge and recognize Dr. McGuire as an expert health economist and allow him to testify accordingly.

THE COURT: Any objection?

MS. HARDIN: I have no objection to his qualifications, Your Honor.

MR. SCHMIDT: Your Honor, we don't objectify to his qualification. We did have a *Daubert* motion regarding, among other things, between his testimony and what this case is about and we would just preserve that.

THE COURT: Well, I understand that and that's pending, but I will recognize Dr. McGuire as obviously an expert in the field of health economics.

MR. FARRELL: Thank you.

BY MR. FARRELL:

Q. Dr. McGuire, you prepared a report that was disclosed in this case, correct?

A. I did, yes.

Q. And for your testimony today, have you helped prepare slides for a demonstrative to assist you in your testimony with the Court?

A. I have.

Q. And would it be helpful for you to see those slides up

on the screen as we move forward?

A. Yes, it would.

MR. FARRELL: Judge, at this point, I would like to publish the front page of the demonstrative and I also have disclosed it and have copies to circulate.

THE COURT: You may do so.

MR. FARRELL: Judge, with your permission?

THE COURT: Yes.

BY MR. FARRELL:

Q. So, Dr. McGuire, I've asked this of most of the experts that come into the courtroom. Let's just start with the big picture. Will you please tell the judge what is it you understand to be your role in this case and why, based on your understanding, have we asked you to come and testify?

A. Okay. I understand my role to be putting an economic valuation on some of the harms that have been identified by previous witnesses due to prescription opioids.

Q. So, let's talk about first what this is not. You are not putting a value on what, in the legal world, we call a damages claim, correct?

A. Oh, I don't -- no, I'm not doing that.

Q. What it is that we've asked you to do is to take the related harms that have been proffered for the Court and perform an economic analysis to place a value on it. Do you understand that?

A. That's correct. I do understand, yes, that's what I -- that's what I'm doing.

Q. All right. So, there's two particular related harms that I would like for you to address today. Can we go to the next slide, please? And these are deaths and morbidity. Can you walk through with the Court the valuation method and the source of your count and what that means?

A. Okay. So, there's two here. Let me start with deaths. Professor Keyes testified regarding the number of deaths in the Cabell-Huntington area that were due to prescription opioids and those are numbers like 120, 150 per year.

And what I did with those numbers is associate a value to each of those deaths using standard economic methodology. So, that would be -- it's going to be a number in the millions.

And then, so for each death valued in the millions, it's a product. How many people died? What is the valuation of that person's life? And that would then be the total of costs imposed on a community by the prescription opioids in the form of death.

Q. What about morbidity?

A. And death is the biggest, which makes a lot of sense. So, that's where most of the weight comes in.

Morbidity follows a similar methodology. It begins with Professor Keyes' count of the number of individuals in

Cabell-Huntington with OUD in any particular year and that's also in the number of hundreds per year. That's what her testimony was.

And then, as an economist, I start with those counts and put a dollar value on each of those individuals per year.

Now, if I could mention one more step about what is being done here, you see on the slide, it says excess healthcare costs. So, what I'll be testifying about, Judge, is one aspect of the costs associated with OUD, which is the excess healthcare costs and, obviously, there are many other -- many other probably more serious ones, loss of function, loss of parenting. None of those do I put an economic value on. The numbers you'll see are only the excess healthcare costs of OUD.

Q. Now, the next slide that you prepared is entitled Conservative Approach and would you please explain to the judge why you felt the need to discuss your approach and why it's conservative?

A. Well, I think it's important for the Court to understand that there's a methodology when it comes to economics. It values things, but it has limitations. And, in this realm, there are some important limitations regarding things that are not counted. So, the value of a life is only from the perspective of the victim and I think

it's obvious the community and the family also are harmed if a family member dies.

And then morbidity, I got ahead of myself a little bit on this. I am only counting excess healthcare costs; whereas, there's many, many adverse consequences of someone who is sick with OUD.

Q. All right. So, the first thing I would like to do is I would like to take a moment and talk about the methodology, which is so important in the field of health economics.

MR. FARRELL: Can we go to the next slide?

MS. HARDIN: Your Honor --

THE COURT: Yes?

MS. HARDIN: We have an objection to this slide being shown. If Dr. McGuire would like to testify about his methodology and he would like to utilize these two articles, we don't have an objection to that, but we have an objection that these articles themselves are -- that the cost analysis that's being shown on the screen is irrelevant to this case. So, we would ask that the slide be taken down and Dr. McGuire testify about his methodology.

THE COURT: Mr. Farrell, do you want to respond to that?

MR. FARRELL: Yes. This is the methodology and the source. This is evidence of the methodology that health economists use across the country with regard to the opioid

epidemic that he will be using and applying to Huntington-Cabell County, West Virginia.

THE COURT: Well, I'm sorry. Ms. Hardin?

MS. HARDIN: I don't disagree that he can testify about the methodology, but what the estimate is, which is the third column of that slide, is not relevant to this analysis.

THE COURT: What about that, Mr. Farrell?

MR. FARRELL: Well, we're trying to establish that the Council of Economic Advisors took A plus B equals C for the nation and we're going to ask him to take A plus B and ask him to calculate C for Huntington-Cabell County.

THE COURT: Mr. Ackerman?

MR. ACKERMAN: I would add to what Mr. Farrell said just to say that to the extent the witness has already testified that he is calculating harms caused by the opioid epidemic, other calculations of harms are relevant to that analysis. I don't understand the argument that it's not relevant.

MS. HARDIN: It's not relevant because those analyses cover the entire United States and at least one of them covers all drugs, including illegal drugs. So, that's how it's not relevant to this case, which is only about Cabell County and the City of Huntington.

THE COURT: Well, that might be true, but -- and

I'll -- after the cross examination, I'll give it such weight as I think it deserves, but I think it's going to be helpful to the Court to have Dr. McGuire explain his entire process here and I think the slide is helpful to that extent and I'll overrule the objection.

You go ahead, Mr. Farrell.

MR. FARRELL: Thank you.

BY MR. FARRELL:

Q. So, Doctor McGuire, you identified two separate studies or two separate items and, in general, can you describe what the Council of Economic Advisors 2017 document titled The Underestimated Cost of the Opioid Crisis, can you explain to the Court what that is?

A. Yes. The Council of Economic Advisors, to begin, is an Executive Office of the President and one of the first things President Trump did in his administration was to call attention to the opioid crisis and he did that through some legislation and he did it through commissioning his report from the -- what's shorthand called the CEA.

And he asked the CEA to look at the harms that were being caused to the country due to the opioid crisis and, as the slide indicates, this is all opioids, not just prescription opioids. That's important for my testimony today because the methodology that was conducted by the CEA for valuing deaths and for valuing morbidity is exactly the

methodology that I'm applying to the Cabell-Huntington community. And I put it in quotes there so I would remember that.

So, it's using conventional economic estimates for valuing life routinely used by U. S. federal agencies. So, they didn't just take this out of the blue. They relied on guidance from other federal agencies and looked at practices by the Department of Transportation, the Department of Environmental Protection, and I think other federal agencies and said this is how we do it at the federal level for regulatory purposes. This is how we, the CEA, are going to value lives lost to the opioid crisis. And that's the methodology I apply in my report.

THE COURT: And the $504 billion figures is for the entire country?

THE WITNESS: That's for the entire country for prescription and nonprescription opioids and it's just for one year.

BY MR. FARRELL:

Q. And so, you've also referenced a second study, Florence, from the CDC. What's the purpose of Florence, et al., CDC 2016 titled The Economic Burden of Prescription Overdose Abuse and Dependence in the U. S., 2013? Why are you referencing this report?

A. Well, this report is probably the best known, second to

the CEA, of studies that look at the national impact of the opioid crisis. And this study, as mentioned on the slide, is only concerned with prescription opioids, as we're concerned with here today.

They had a -- they took a comprehensive approach to quantifying harm in a number of different areas, as I did in my report and, importantly for my report, these are the -- this is an analysis that conducts the excess cost quantification in a way that was adopted by the CEA that's essentially used in a number of other papers that are published on the same topic and that I used in my report.

Q. Now, does the CEA report that is referenced in the slide, does it actually walk through and identify the methodology for both of your estimates here today?

A. Well, it certainly does with respect to mortality and then it incorporates the Florence estimate. So, CEA says we're going to use Florence for morbidity which is, in effect, and it's not walking through, but it's at least referencing the Florence approach.

Q. And I have a copy of the actual CEA report. It's P-41886.

MR. FARRELL: Judge, may I approach?

THE COURT: Yes.

MR. FARRELL: Am I a copy short?

COURTROOM DEPUTY CLERK: Yes.

BY MR. FARRELL:

Q. So, Dr. McGuire, do you recognize this document?

A. Yes, I do.

Q. And what is this document?

A. This is the CEA report.

MR. FARRELL: All right. Can we bring up the exhibit, please?

BY MR. FARRELL:

Q. And the first thing I'd like you to do is you note the seal of the President of the United States on Page 1?

A. Yes.

Q. And if we can flip to the very back page.

MR. FARRELL: And can you blow up that section down there?

BY MR. FARRELL:

Q. This is from the report and you'll see that it references the White House website, correct?

A. Yes.

Q. And does the statement on the back of the page about the Council of Economic Advisors, is it consistent with your testimony that this is a report commissioned by the President of the United States and published under the authority of his office?

A. Yes, it is.

Q. And is this document the methodology upon which you

relied in providing your testimony today?

A. Yes, it is.

Q. And the methodology referenced in this report, is it widely accepted by health economists and relied upon for purposes of your profession?

A. Yes, it is.

MR. FARRELL: Judge, at this time, we'd ask for the admission of the exhibit.

THE COURT: Ms. Hardin?

MS. HARDIN: Objection, Your Honor. I don't believe that Mr. Farrell has laid the foundation for all of the elements of 803(8). So, we object that it's a public record if that's what he was attempting to establish there.

We also object on relevance and geographic scope arguments for the reasons I already said. This is an estimate for the entire United States that is not in any way, shape or form limited to Cabell County and the City of Huntington.

And to the extent that it is just reliance material, Dr. McGuire may certainly testify about it, but there's no need for the basis of his methodology to be admitted in this case as actual evidence.

MR. SCHMIDT: Join.

THE COURT: Mr. Farrell, have you checked all the blocks under 803(8)?

MR. FARRELL: I have, Your Honor.

THE COURT: The office's activities -- duties to report -- obviously, this is pursuant to a charge of the government. I'm going to overrule the objection and admit it under 803(8).

MR. FARRELL: Thank you, Your Honor.

BY MR. FARRELL:

Q. Dr. McGuire, before we move on to the next calculations, I'm going to rely upon your expertise in health economics to tell the judge, based on the CEA report, based upon your experience and background, and based on generally accepted methodology within the field of health economics, how did you come about to value a life for purposes of your opinions today?

A. I'm not sure I understand the question. I'm sorry.

Q. Well, I tried to use a bunch of legal stuff at the front end to get to the basis at the back. What is the VSL and how did you come about to calculate the value of each statistical life that is referenced in your report?

A. Okay. Now I understand. The methodology that's used in the CEA report and that I applied in my report refers to a value of a statistical life. VSL is the shorthand for that. And it's that economic concept that is the quantification of the cost of a death.

Q. Okay. So, what is it that you -- what is the value of

life that you use? What is the factor that you've used in your report that you've relied upon to generate the results?

A. The dollar factor begins with the recommendation of the CEA. That's also consistent with the recommendation of a number of other federal agencies.

THE COURT: Let me interrupt and make clear my basis for my ruling on admitting this. Rule 803(8) allows a public record to be admitted if it sets out the office's activities and this is certainly activities of the Council of Economic Advisors, a public -- obviously, a public entity, a matter observed under legal duty to report, and this is a legal duty to report because the last page, as Mr. Farrell pointed out, shows a charge to the Council of Economic Advisors to offer the President objective economic advice in the formulation of domestic and international economic policy and this report is completed pursuant to that directive and -- which is certainly a legally authorized investigation under 803(8)(a)(3).

So, I think it does come within that exception to the hearsay rule. I just wanted to make my ruling clear.

MS. HARDIN: And we would just maintain our relevance objection, Your Honor.

MR. FARRELL: Thank you.

THE COURT: All right. Your objections are shown on the record and you may proceed.

BY MR. FARRELL:

Q. So, from -- let's start with this. Did the Council of Economic Advisors make a learned recommendation of the value to place on a statistical life lost to the opioid epidemic?

A. Yes, they did.

Q. And what was that value?

A. The -- there was actually several values they used, but the central value, I would say, was $9.3 million dollars per person and I think that was in 2014 dollars.

Q. Did you conduct your own analysis or use your own expertise to validate the accuracy and appropriateness of that value?

A. Yes.

Q. Okay. And so, what -- I guess what I'm asking is, is where did the CEA get that number and the process, your methodology by which it got the number, do you approve it and validate it?

A. I would say yes. This -- they chose that number based on the practices of other federal agencies who were conducting similar analyses and based on the recommendations of an agency called the Assistant Secretary for Planning Evaluation of HHS, which doesn't sound important, but it actually is very important.

Q. So, are you prepared to testify that the CEA report of November 2017 uses sound methodology relied upon and used by

health economists in the United States?

A. Yes.

MR. FARRELL: Let's, if we could, go to the next slide, which is Demo Exhibit 5.

Your Honor, may I approach?

THE COURT: Yes.

MR. FARRELL: I don't know how to make that go away.

BY MR. FARRELL:

Q. So, the slide that we're showing now which is Demo 245, Page 5, does this page accurately reflect your calculations of the value of statistical lives lost to the opioid epidemic arising out of Huntington-Cabell County, West Virginia?

A. I would qualify that to say yes, but these are due to prescription opioids.

Q. Very good.

A. In Cabell County.

Q. And how do you know that?

A. I know that because the first row total deaths attributed to prescription opioids were provided to me by Professor Keyes.

Q. Very good.

A. That's what -- excuse me. That's what her task was. That's what she did. And then, my role was to supply the

second line, the value of statistical life, which is adjusted for time and adjusted for relative income in Cabell compared to the nation.

Q. What methodology did you use to adjust the VSL over time?

A. There's two things you need to adjust for. One is over time because there's changes in consumer prices that would affect the valuation. And then the second form of adjustment is the income in Cabell compared to the average income in the United States.

The VSL is kind of rooted in a willingness to pay and willingness to pay is affected by income. And so, in a -- the methodology, it implies that for a lower average income area, the VSL would be taken down roughly in proportion to the lower income.

Q. And the adjustments that you made, did you use methodology routinely used by health economists when performing this function?

A. Yes. Those are the methodologies I used.

Q. And then, I think for propriety, we probably need to read into the record the VSL values for each year from 2006 forward. Could you do so, please?

A. Okay. 2006, $4.6 million. 2007, $3.9 million. 2008, $4.2 million. 2009, $4.8 million. 2010, $5.2 million. 2011, $5.7 million. 2012, $5.4 million. 2013,

$6.3 million. 2014, $5.1 million. 2015, $6.3 million. 2016, $6.4 million. 2017, $5.2 million. 2018, $6.5 million.

Q. And in the first row you have calculated the total number of deaths relying upon the testimony of epidemiologist Dr. Kerry Keyes. Will you please tell the Court what the total number is?

A. The total number spanning 2006 to 2018 is 497.

Q. And then, based upon the multiplication of the total deaths per year by the VSL that you've identified per year, were you able to calculate annual valuations and then compile it into a total?

A. Yes, I was.

Q. And so, based upon your analysis, what is the total value of the statistical lives lost in Huntington Cabell County, West Virginia related to prescription opioids?

A. Over that time period is $2.775.7 million dollars. So, that's -- a simpler way to say it would be $2.8 billion dollars.

Q. So, $2.8 billion dollars in lost life arising out of Huntington-Cabell County, West Virginia?

A. Yes.

Q. Now, in addition to the morality, did you also perform the same analysis using the same methodology to look at morbidity?

A. A very similar methodology, yes.

MR. FARRELL: Can we bring up Slide 6, please? And, again, this is from 2006 to 2018 and the count or the numbers that for OUD cases due to prescription opioids, where did you get that data?

A. That's an epidemiologic element of data. How many people have disease in an area at a certain time period. And these numbers were derived by the epidemiologist, Katherine Keyes.

Q. And so, where did you get the excess healthcare costs per OUD case?

THE COURT: Let me interrupt you for a minute.

Dr. McGuire, this is probably a very dumb question, but you need to tell me what the difference is between deaths and morbidity.

THE WITNESS: Okay. Deaths are people who die.

THE COURT: Okay. I've got that.

THE WITNESS: You can probably anticipate that. And then morbidity is people who are sick.

THE COURT: Okay.

THE WITNESS: So, it's mortality and morbidity. Mortality is died; morbidity is sick.

THE COURT: Okay.

THE WITNESS: So, these people are all around, but they're having problems.

THE COURT: Okay.

BY MR. FARRELL:

Q. And so, how did you calculate the excess healthcare costs for the sick people in Huntington-Cabell County arising out of the opioid epidemic?

A. Okay. First of all, it should be expected that people with OUD are going to cost more in terms of healthcare directly for their illness, for other illnesses that are related, such as Hep C and HIV, and they're more expensive to treat for pretty much anything. So, there is going to be additional healthcare costs for people with that condition.

This has been studied by a number of cases. I Count 11 that are in my -- in one of my tables. Papers that all use the same methodology, which is to compare people with OUD to similar people without OUD, and look at the difference in their healthcare cost. That's the basis of the methodology. And I relied on those papers and took estimates from those papers that I thought were most relevant and applied them to Cabell-Huntington.

Q. So, to be clear, the number of people -- OUD means Opioid Use Disorder, correct?

A. Yes.

Q. And you rely upon the estimates from Dr. Kerry Keyes to calculate the number of people with OUD in Huntington-Cabell County, correct?

A. That's right. That's the first row.

Q. And then what you did was you used a variety of factors in your methodology that are relied upon within the field of health economics to calculate the total excess health costs for those individuals, correct?

A. Yes. It's very a straightforward and well used methodology.

Q. And so, what was the total that you reached for the total excess healthcare costs for individuals in Huntington-Cabell County that are suffering from Opioid Use Disorder?

A. This is the lower right-hand number. It's $494 million dollars over the period of 2006 to 2018.

MR. FARRELL: Now, could we go to the final slide, please?

BY MR. FARRELL:

Q. The final slide is Demo 245, Page 7, and it is a -- it is a summary slide of your two opinions in this case. Does this slide fairly and accurately depict your opinions in this case measuring the harms to Cabell-Huntington community in economic terms between 2006 and 2018?

A. Yes, it does.

Q. And does the total come to a harm approximately $3.2 billion dollars of related harms of death and excess healthcare costs?

A. Yes, it does.

Q. And do you hold these opinions to a reasonable degree of health economic certainty?

A. I do.

Q. And the methodology that you used, is it a methodology that is commonly used in your field, including by the Council of Economic Advisors appointed by the President of the United States?

A. It is.

MR. FARRELL: Judge, if I could have a moment?

THE COURT: Yes.

(Pause)

MR. FARRELL: Judge, we have no further questions.

THE COURT: All right. You may cross examine, Ms. Hardin.

CROSS EXAMINATION

BY MS. HARDIN:

Q. Good morning, Dr. McGuire.

A. Good morning.

Q. I'm Ashley Hardin. I represent Cardinal Health. How are you this morning?

A. Fine so far. Thanks.

Q. Dr. McGuire, you told the Court that what you have done is put an economic value on harms identified by previous witnesses in this trial; is that correct?

A. By Professor Keyes.

Q. Only Dr. Keyes?

A. Well, what I testified about this morning was deaths that were identified by Professor Keyes and people with disease that were also identified by Professor Keyes.

Q. And you did not discuss this morning with Mr. Farrell any benefits to the prescription opioids that were sold and distributed in Cabell County or the City of Huntington; is that correct?

A. That's correct.

Q. But you understand that there have been witnesses in this trial who have testified that there are benefits to prescription opioids; is that correct?

A. I'm not directly familiar, but I'll take your word for it.

Q. You're familiar with Dr. Corey Waller?

A. Yes.

Q. And you know that he is a paid expert for the plaintiffs in this case?

A. Yes.

Q. And you know that Dr. Waller testified in this trial?

A. I do know that.

Q. And, as a matter of fact, he was the very first witness who came and testified?

A. Okay.

Q. Are you aware of that?
A. I wasn't sure, but okay.
Q. Did you watch Dr. Waller's testimony?
A. No.
Q. Have you read the transcript of his testimony?
A. I skimmed it. I didn't -- I wouldn't say I read it, read it.
Q. So, are you aware that he testified that prescription opioid medications have legitimate medical uses?
A. I may have seen it in the transcript. That wouldn't shock me.
Q. Are you aware that Dr. Waller testified that he, himself, has prescribed opioids thousands of times over the course of his career?
A. I don't remember seeing that in the transcript.
Q. Are you aware that Dr. Waller testified that prescription opioids can be effective in treating acute traumatic pain?
A. I didn't see that in the transcript, but I'm -- his report may have contained that. I -- but I didn't see it in the transcript, if that's what you're asking.
Q. And are you aware that Dr. Waller testified that prescription opioids can be effective in palliative care settings?
A. I didn't see that in the transcript.

Q. If that was the testimony of Dr. Waller, do you have any basis to disagree with it?

A. No. He's a clinician. I'm not.

Q. And are you aware that he testified that if someone were to net out the costs and the benefits associated with prescription opioids that that person would need to take into account those benefits in treating acute traumatic pain and palliative care?

A. I'm not sure I understand the question. Sorry.

Q. I was asking you if you are aware of testimony by Dr. Waller that if a person were to engage in a netting of the costs and benefits of prescription opioids that that analysis would have to take into account the benefits of treating acute traumatic pain and palliative care?

A. Okay. So, am I aware of the testimony? The answer is no.

Q. And you understand that the FDA approved prescription opioids as safe and effective when used as prescribed?

A. Right, yes.

Q. So, you understand that the FDA has determined that there are benefits for some populations to prescription opioids?

A. They -- this is something that I -- of course, it is not an economic question, but that's my general understanding of the role of the FDA.

Q. And if physicians and other prescribers in Cabell County and the City of Huntington determined for their patients that the benefits of prescription opioids outweighed the risks, you're not in a position to second-guess that determination?

A. I'm an economist. I'm not in a position to second-guess clinical decisions.

Q. And as far as you know, Cabell County and City of Huntington doctors prescribed opioids in amounts they did in the belief that the benefits would outweigh the risks for their patients; is that correct?

A. I have no understanding of that.

Q. Did you know that Joseph Rannazzisi, who is the former Head of the Office of Diversion Control for the DEA, testified in this trial?

A. I think I did know that he testified, yes.

Q. Have you had occasion to either watch or read the transcript of his testimony?

A. No.

Q. So, did you know that he testified that when he was the Head of the Office of Diversion Control that he repeatedly stated, including to Congress, that the overwhelming majority of prescribing in America was conducted responsibly?

A. I didn't read his testimony.

Q. But if that were his testimony, you have no basis to disagree with it?

A. That's correct.

Q. And did you know that he also testified that the DEA raised the quotas for prescription opioids every year to make sure that legitimate patients and palliative care, Hospice and end-of-life care could get their necessary medications?

A. I didn't read his testimony.

Q. But if that was his testimony, you have no basis to disagree with it; is that correct?

A. That's correct.

Q. Okay. Dr. McGuire, I would like to talk now about the cost side, the harm side, which is what you testified about this morning; is that correct?

A. Yes.

Q. And what you did, as I understood it, was you assigned an economic value to deaths and excess healthcare costs due to prescription opioids sold and distributed in Cabell County and City of Huntington from 2006 to 2018; is that correct?

A. That's fair.

Q. And you noted that the Council on Economic Advisors had done a similar type of analysis; is that correct?

A. Well, as you pointed out, there were some differences.

Q. And the purpose of the CEA, which I think, as you said, is the appropriate abbreviation for the Council of Economic Advisors, they state in the paper that Mr. Farrell handed to you that their purpose was to provide policy makers with the economic analysis needed to review and assess potential policy options; is that correct? Is that your understanding?

A. That sounds -- that sounds what I would expect this to say. I haven't -- I would have to confirm if you want me to do that.

Q. It's on Page 9. And that was P-41886. First sentence under Heading 3, Future CEA Analysis.

A. Okay, I see.

Q. So, you agree that the CEA said that its purpose was to provide policy makers with the economic analysis needed to review and assess potential policy options; is that correct?

A. I see that, yes.

Q. And that's a very different purpose than what we have here in this lawsuit; isn't that right?

A. I'm not sure what your purpose here is in the lawsuit, but the economic methodology is what I paid attention to and what I apply.

Q. Well, you understand that the purpose of this lawsuit is not to make policy, correct?

A. I'm not sure I should speculate on that, but I -- I

hope this lawsuit will have an effect on the way we handle the problem of Opioid Use Disorder. That's policy, in my view.

Q. But you're not sure sitting here today exactly what the purpose of this lawsuit is then; is that correct?

A. Well, I know what the allegations are. I think different parties have different purposes. But from the standpoint of a health economist and a health policy economist, I think it's important and significant that these issues are being called attention to, that some of the harms are identified and, ideally, this leads to some improvement in the way we deal with a very significant public health problem.

Q. And the way that you assigned the economic value, at least to the death portion of what you testified about, was this method, the VSL, the value of a statistical life; is that correct?

A. That's correct.

Q. And in layman's terms, what that really means is the value that a person is willing to pay in order to avoid the risks, is that --

A. No. I wouldn't go on that.

Q. It is the value -- it is the willingness of a person to exchange money for a reduced mortality risk; isn't that what the VSL is?

A. No. I wouldn't go with that either.

Q. Like that's what the CEA says that it is. Would you disagree that that's how the VSL works?

A. Well, that's not how the VSL works and if you show me the discussion of the CSA, I'm happy to comment on it.

Q. If you don't agree with my characterization, I think we can move on, Dr. McGuire. The value that you placed on the deaths and the excess healthcare costs from 2006 to 2018 is roughly about $3.2 billion, you said; is that correct?

A. I'm sorry. The deaths alone?

Q. No, the deaths combined with the excess morbidity?

A. Yes. Yes, that's correct.

Q. And those are economic costs, correct?

A. Yes. I would call them economic costs.

Q. And it is not your opinion that Cabell County or the City of Huntington have spent $3.2 billion dollars due to the sales and distribution of prescription opioids between 2006 and 2018, correct?

A. That's correct.

Q. And then when it comes to opioid-related expenses, out-of-pocket money by the county and the city governments, you didn't do any analysis, correct?

A. That wasn't my purpose.

Q. So, you don't know what their out-of-pocket expenses were, if any, between 2006 to 2018 as a result of the sale

and distribution of prescription opioids?

A. That's correct. I didn't study that.

Q. And you're not offering an opinion about any amounts that the City of Huntington and Cabell County actually spent due to the sales and distribution of opioids by the three defendants in this case, correct?

A. That's correct.

Q. And you are not offering opinions about the amount of money that Cabell and Huntington may have to spend in the future as a result of the distribution of prescription opioids from 2006 to 2018?

A. That's correct. My analysis is backward looking, not forward looking.

Q. And I think you told Mr. Farrell that you did not calculate damages to the City of Huntington or Cabell County as a result of the actionable conduct, if any, by these three defendants?

A. Well, I -- I know damages has special meanings in places like this and so, I didn't think of what I was doing as damages. It is harm in an economic sense, but I don't know that it's damages in a legal sense.

Q. And you are not offering an opinion about how much it would cost to fund a remediation plan to address addiction or other opioid-related harms in Cabell County and the City of Huntington in the future?

A. That's correct.

Q. And when you calculated the value of the harms, you looked at the total sales of prescription opioids in Cabell County and City of Huntington from 2006 to 2018, correct?

A. That's correct.

Q. And doing your analysis, you didn't exclude any sales from your calculation, correct?

A. Well, to be clear, this would have played into Professor Keyes' component, not McGuire's component. My valuations were taken from the standards used in federal agencies or in economic research. So, the count of people who died and had disease, that's where there might have been some allocation among different distributors, but it didn't play into my work.

Q. So, you didn't exclude the value of any harms based on the sales and distribution of prescription opioids to hospitals?

A. Well, again, this -- this kind of counting was something that I drew upon from Professor Keyes. My role was valuation. I'm not sure if that's getting to your question, but --

Q. Professor Keyes -- you took from Professor Keyes the amount of people that, according to her, died as a result of prescription opioids from 2006 to 2018?

A. In total, yes.

Q. And you took from -- the input from Professor Keyes on the total number of people who, according to her, have Opioid Use Disorder from 2006 to 2018?

A. That's right, in total.

Q. But I'm asking you about the calculation that you did when you calculated the value of the economic harm based on those numbers?

A. All right.

Q. So, when you did your analysis you did it based on total sales and distribution of prescription opioids in the City of Huntington and Cabell County from 2006 to 2018?

A. Well, that's where I think we're a bit across purposes. The valuation that I derive per life was starting with 9.3 million 2014 national average. I can start with that no matter what it's being applied to and that's my contribution.

And my contribution on the morbidity side was also pretty straightforward. It's a dollar number per something and I think your question is really about the per -- is about the -- how many people you would count in the category, not about the valuation of those people, unless I am misunderstanding you. I'm sorry.

Q. Well, let's see if we can try to get on the same page. I am asking you about the analysis that you performed. You took some numbers from Dr. Keyes. I understand that you did

that.

A. Right.

Q. But then you calculated the harms based on the total sales and distribution of prescription opioids into Cabell County and the City of Huntington between the years 2006 and 2018. That's the calculation that you did, correct?

A. I heard exactly the same question. My contribution was the valuation of Professor Keyes' counts in both of those cases. I'm sorry if I'm missing the point of your question.

MS. HARDIN: Mr. Huynh, can we pull up the deposition transcript of Dr. McGuire? Page 47, please.

BY MS. HARDIN:

Q. Dr. McGuire, do you recall being deposed in this matter on September 9th, 2020?

A. I do.

Q. And you were under oath when you gave that testimony?

A. Yes.

Q. And the testimony that you gave was truthful?

A. Yes.

Q. Okay. So, look at Lines -- this is Page 47, Lines 1 through 6. "And so, in quantifying the harms resulting from the sale or distribution of prescription opioids, you didn't exclude any prescription opioid sales or distributions during that time period, 2006 to 2018, correct?" And your answer was "Didn't exclude."

THE COURT: I'm sorry. Go ahead, Ms. Hardin, and then I'll take his objection.

MR. FARRELL: Judge, I'm going to object on the grounds of this is not proper impeachment. This is a separate and distinct component of the testimony from Dr. McGuire that's related to opinions in his report that are not offered in this case. This is the net balancing assessment and I don't believe that Dr. McGuire testified on direct that he used sales whatsoever as a component of his calculations of the related harms on death and morbidity.

THE COURT: Well, I think it's arguably inconsistent and it's a matter you can clear up on re-direct if you want to, Mr. Farrell. I'm going to overrule the objection and let her go ahead.

BY MS. HARDIN:

Q. Dr. McGuire, when you testified about the amount of the harms this morning, you did not calculate the amount of economic harms attributable to just the sales and distribution of prescription opioids by these three defendants; isn't that correct?

A. I didn't exclude anything. I can put it that way, if you like, and had I excluded something, it would have been through excluding some of Professor Keyes' counts, but I did not exclude any of the counts of Professor Keyes'.

Q. You have no basis to think that the numbers that came

from Dr. Keyes are just the deaths and excess morbidity that she says are caused by these three defendants; isn't that correct?

A. I don't know that she says that. But what was the question to me?

Q. You said you did not exclude any -- you didn't partition it in any way, I think is what -- I know that's not the exact phrasing you used, but I think that's the point of what you're saying, correct?

A. Yes.

Q. That you're only using the numbers that you got from Dr. Keyes?

A. Yes.

Q. Right. And when you did your calculation, you didn't make any attempt to only calculate harms based on the sales and distribution of prescription opioids, if any, by these three defendants?

A. That's correct. I did not do that analysis.

Q. And you did not, in calculating the harms, attempt to only calculate the economic harms associated, if any, with the sales and distribution of prescription opioids by AmerisourceBergen?

A. That's correct.

Q. And you didn't do that calculation only for the opioid -- the prescription opioids sold by McKesson?

A. That's correct.

Q. Nor did you do that with respect to the prescription opioids sold and distributed by Cardinal Health?

A. That's correct.

Q. And you understand that these three defendants are not the only wholesale distributors that supplied opioids to Cabell County and the City of Huntington from 2006 to '18, correct?

A. It wouldn't surprise me if there were others.

Q. Did you listen or have occasion to read the trial testimony of Dr. Craig McCann?

A. No.

Q. Do you understand that he's another one of the plaintiffs' experts?

A. I know that, yes.

Q. Are you aware that he testified that there were 36 wholesale distributors who distributed prescription opioids to Cabell County and City of Huntington?

A. I didn't read his testimony.

Q. And you would have no reason to disagree with that if that were his testimony?

A. That's correct.

Q. And you are aware that other distributors, other than these three, supplied opioids -- or distributed opioids to pharmacies in Cabell and Huntington?

A. Well, I'm not really aware, but I am -- it doesn't surprise me if it were the case.

Q. And you understand that the defendants in this case are wholesale distributors; is that correct?

A. Yes.

Q. And you understand that they are registered by the Drug Enforcement Administration to distribute prescription opioids?

A. Yes.

Q. But in calculating the harms that you testified about this morning, you did not make any attempt to only calculate the harms that were attributable to defendants, unlawful distributions, if any, as opposed to their lawful distributions?

A. I think we can get to the point here more quickly, that's correct.

Q. And you didn't calculate the harms based only on the allegedly suspicious orders, if any, that the defendants shipped into Cabell County and Huntington?

A. That's correct.

Q. And you did not, in performing your calculation, determine an appropriate level of distribution of prescription opioids into Cabell and Huntington and then calculate the harms only with regard to those that were shipped above that appropriate level; is that correct?

A. That's correct.

Q. Now, you also understand that wholesale distributors are not the only entities that sold and distributed prescription opioids in Cabell County and City of Huntington from 2006 to '18, correct?

A. I have a general understanding of that, yes.

Q. You understand that there are illegal sales of prescription opioids that take place and that did take place?

A. Yes.

Q. From entities like drug cartels, or street gangs, or the like?

A. Yes.

Q. And you did not, when you were calculating the harms, try to isolate and only calculate the costs that would be attributable to the sales and distributions by those illegal actors in Cabell and Huntington?

A. That's also correct.

Q. So, your analysis is based on the totality of the prescription opioids in Cabell -- sold and distributed in Cabell County and the City of Huntington?

A. That's fair.

Q. So, if the Court wants to know the total economic costs associated using a VSL method of all the sales and distribution of prescription opioids from 2006 to 2018, your

number is the one you gave on the stand this morning, correct?

A. That sounds right.

Q. But if the Court wants to know the economic costs attributable to just these three defendants' actionable conduct, if any, you don't have that number, correct?

A. I don't have that number.

Q. And you wouldn't know how to come up with that number, would you?

A. Well, I could give it some thought, but I don't have that number right now.

MS. HARDIN: Can we pull up the deposition transcript, Page 59, 8 through 19, please?

BY MS. HARDIN:

Q. Dr. McGuire, this is the same September 9th, 2020 deposition that you gave. And the question was, "Then, did you differentiate at all between the economic harms or costs that were imposed by the unlawful sale and distribution of prescription opioids versus the lawful sale and distribution of prescription opioids," and you said, "I think this partition has been talked -- been asked about previously. Again, I did not partition on this basis. I don't -- I wouldn't know how to do it."

Was that your answer?

A. That was my answer.

Q. And you testified truthfully?

A. I did.

Q. And such a calculation would be beyond your expertise, correct?

A. Well, I could give it some thought, but I -- I'm not claiming it's my expertise.

Q. I think the next sentence of your answer from that September 9th deposition was, "It's not within my expertise," correct?

A. That's what the sentence says, yes.

Q. And it was truthful at the time you gave it, correct?

A. It was truthful, yes.

MS. HARDIN: No further questions, Dr. McGuire.

THE COURT: Any other defendant want to cross Dr. McGuire?

Mr. Schmidt?

MR. SCHMIDT: May I proceed, Your Honor?

THE COURT: Yes, you may.

CROSS EXAMINATION

BY MR. SCHMIDT:

Q. Good morning, Dr. McGuire. My name is Paul Schmidt. I represent McKesson. I'm going to try to be exceedingly brief.

A. Thank you.

Q. I'll ask for your help.

You've talked about relying on Dr. Keyes; do you recall that?

A. Yes.

Q. I'd like to show you some testimony from Dr. Keyes, but I'm going to need just a minute for that. I didn't realize I was jumping in without our tech person being here, so if you could give me just a minute and bear with me, we can do that.

MR. SCHMIDT: And I apologize, Your Honor. I didn't realize my setup wasn't ready.

THE COURT: That's all right. We're all prisoners of technology anymore, Doctor.

THE WITNESS: Getting worse and worse.

MR. SCHMIDT: I'm nothing without my tech, at least for this question. You'll see we each have our own tech people, so they switch in between and we ask them to do superhuman work under the circumstances going back and forth and they -- they do it.

Mr. Reynolds, could we pull up the June 14th, 2021 trial testimony from Dr. Keyes, 76, Lines 8 through 15, when you're all connected up? June 14th, 76, 8 through 15.

BY MR. SCHMIDT:

Q. And I just want to show you, Dr. McGuire, one bit of her testimony and then ask you a question about it, if I may, before moving on to a different subject.

MR. SCHMIDT: Thank you for bearing with me, Your Honor. So, it's June 14th, 76, Lines 8 through 15, please.

THE COURT: There we go.

BY MR. SCHMIDT:

Q. Okay. And I just want to read this testimony together and then ask you a question about it. Dr. Keyes is asked, "Going back to what we established a few minutes ago, your view is that the overwhelming majority of doctors prescribe opioids in good faith, correct?" Answer, "Yes. I think many doctors are doing their best."

Question, "The overwhelming majority, correct?" Answer, "Certainly, yes, the majority."

Question, "The overwhelming majority, correct?" Answer, "Yes."

Do you see that testimony?

A. I do, yes.

Q. Did you know that was Dr. Keyes' view including, I believe in this instance, as stated in this instance in one of her publications?

A. I wasn't aware of that.

Q. Did you undertake any quantification either -- well, let me ask it in two parts. Did you undertake any quantification of the benefits that this overwhelming majority of doctors thought they were providing by prescribing opioids in good faith?

A. Well, I did undertake a quantification of the labor market effects of prescription opioids which this would have played into.

Q. Okay. How much in terms of treating pain, in terms of actual benefit to human beings, did you calculate?

A. Well, working is a benefit to human beings.

Q. Other than -- other than working, did you calculate any benefits?

A. I did not calculate the benefits of pain reduction.

MR. SCHMIDT: And let's stay with that quote, please, Mr. Reynolds.

BY MR. SCHMIDT:

Q. Did you calculate how many of the costs that you identified are attributable to this overwhelming majority of doctors who Dr. Keyes tells us are prescribing in good faith? Did you allocate your costs in that way?

A. I didn't allocate my costs by defendant or by form of use.

Q. Do you know whether it's true or not that the -- I'm picking up on this phrase that she's using, the overwhelming majority. Do you know whether it's true or not that the overwhelming majority of your costs would be from doctors who prescribe opioids in good faith? Do you know that one way or the other?

A. I don't know that.

Q. There have been published estimates of the costs that pain and untreated pain impose on society, correct?

A. Yes.

Q. Are you familiar with some of those publications?

A. Yes.

Q. Do you know sitting here right now what they estimate in terms of the costs of untreated pain?

A. I can't tell you the numbers.

Q. You talked a couple of times during your direct examination about being a fellow of the Institute of Medicine; do you recall that?

A. Yes.

Q. Are you aware that the Institute of Medicine has published estimates or an estimate of costs of untreated pain?

A. I'm aware, yes.

Q. Let's take a look at that, please.

MR. SCHMIDT: And may I approach, Your Honor?

THE COURT: Yes.

BY MR. SCHMIDT:

Q. Dr. McGuire, before you came, we have had a witness where we had a very voluminous document. This is a very voluminous document, but because we literally ended up with a wall of documents on the judge's table, I've started excerpting. So, I'm going to give you excerpts of that

study and if you need to see more, let me know.

A. I know the IOM reports are massive.

Q. Yes. Trying to adapt over the course of our trial. I've given you what I've marked as DEF-WV 3688. And why don't we go to the second page. And if we look at the second page, about halfway down, do you see the name Institute of Medicine?

A. Yes. Okay, I see.

Q. And the title of the publication -- and I don't know if you saw. You've got a screen to your right. We're going to put things up there, if it helps you find something in the document.

A. Okay.

Q. As we look at it.

A. Okay.

Q. Do you see the title of this Institute of Medicine publication is Relieving Pain in America?

A. I see that.

Q. And if you go to the next page of the excerpt, Page 3, if you look down near the bottom at the suggested citation just in the last line it's from 2011. Do you see that date?

A. I can read that, yes.

Q. Okay. And then let's go to Page 20 of this excerpt and it has a heading summary. Do you see that?

A. Yes.

Q. And I'd like to just look at the first two sentences of that summary. First sentence, "Acute and chronic pain affects large numbers of Americans with approximately 100 million U. S. adults burdened by chronic pain alone." Do you see that?

A. Yes.

Q. Do you take any issue with those statistics, sir?

A. No.

Q. The next sentence says, "The annual national economic cost associated with chronic pain is estimated to be $560 to $630 [sic] billion." Do you take any issue with those calculations given in this 2011 report?

A. No.

Q. And, in fact, are you aware that these calculations sponsored by the IOM were ultimately published in a study that you cite in your report?

A. Yeah. I do -- I remember this study.

Q. Do you accept this data as valid?

A. Yes, I do.

Q. Okay. I want to turn to a different topic, please, and I want to ask you very briefly a few questions about this report from the Council of Economic Advisors. Do you still have that in front of you? It's P-41886 and I'm also going to put it up on the screen, if I could.

A. Okay.

Q. Do you still have that in front of you, sir?

A. I've got it.

Q. Go to the second page of the document and I'm going to be using these little numbers down here, which are different than the actual original numbers. So, I'm going to refer to Page 2 in the bottom right corner, if that's okay. Let's highlight under Heading 1 the opioid crisis and previous cost estimates. Do you see that?

A. Yes.

Q. And the study -- and in this report that you told us about they say, "Opioids are largely effective for their main prescribed uses of reducing acute pain and as anesthesia during surgery."

Did I read that correctly?

A. You did.

Q. So, I just want to break that down for a moment, if I may. First of all, they talk about opioids being largely effective for reducing acute pain. Do you see that?

A. I see that.

Q. You don't take any issue in your work with that proposition, do you?

A. This is -- these are clinical statements that I am not challenging.

Q. Second question, they say they're largely effective for anesthesia during surgery. Do you see that?

A. I see that.

Q. You don't take any issue with that for the same reasoning, correct?

A. Same reasoning, yes.

Q. And third point and final point on this language. They say that those uses, reducing acute pain and anesthesia during surgery, are their main prescribed uses. Do you see that?

A. I see that.

Q. Do you take any issue with that fact, that the main prescribed uses for prescription opioids are reducing acute pain and anesthesia during surgery?

A. No. I don't have any reason to question this.

Q. Let's go to Page 3, please, of the document. Do you see that they show opioid over -- I'm sorry. Let me start again. Do you see that they show opioid involved overdose deaths up to 2015 and they're increasing?

A. I see that.

Q. Do you have an understanding that the reason for the later increase is heroin and fentanyl, illegal fentanyl?

A. That would be -- you know, the direct indication on the death certificate would be heroin and fentanyl. It would be more frequently heroin. Heroin and fentanyl during that time period.

Q. And then they go on, if we go on to the next page, Page

4, to talk about the methodology. Could we go to Page 4, please? Going a little out of sequence. They talk about the methodology they use and that you said you used. If we look under the heading of the third line, we see that acronym, VSL. Do you see that?

A. There it is, yes.

Q. And I just want to read you a couple of statements from this and see if you agree or disagree with it. Go to the next paragraph, the bottom paragraph on this page. They say, "Although VSL is widely used to value of the risk of fatalities" -- first of all, do you agree with that?

A. Yes.

Q. "There is not a consensus on what value the VSL should take in various settings." Do you agree with that?

A. I agree with that.

Q. Let's go to Page 4, please. Under the -- I'm sorry. Page 5, please. In the last paragraph, the first sentence states, "Some argue, however, that VSL estimates are prone to being overstated." Do you see that?

A. I do, but I'm -- I'd like to look at the paragraph -- oh, here it is. Just give me one second.

Q. Yeah. It's Page 5 on the bottom right.

A. Yes, I see it.

Q. Do you agree with that statement?

A. Yes.

Q. And then they go on to say a few lines down right after the highlighting here, "Another concern, evident in the literature on wage differentials and occupational risks, is that failing to control for confounding factors will bias VSL estimates upwards." Do you see that?

A. I see that, yes.

Q. Do you agree with that concern?

A. These are concerns, yes.

Q. Okay. Let's go to Page 9, please, of this study or this report and they have a Table 3. And if we could cull out Table 3, I want to just ask you about what this shows. Am I correct that Table 3 reports four different studies?

A. Yes. Yes.

Q. Just like in the deposition, I've got to ask you to give a verbal answer. Thank you for doing that.

The last one is the present study, the Council of Economic Advisors, correct?

A. Yes.

Q. Above that is the Florence study you talked briefly about, correct?

A. Yes.

Q. And above that are two studies by Birnbaum. Do you see that?

A. Yes.

Q. And for each of them, they have the year, some criteria

about them. I want to skip over to the second to last column. Do you see that?

A. I see that.

Q. And we see the 504 billion from the Council of Economic Advisors report. Do you see that?

A. I see that.

Q. And it's $79.9 billion from Florence, correct?

A. Yes.

Q. And all the way down to $11.5 billion from the Birnbaum study, correct?

A. Yes.

Q. On the next page of the report, on Page 10 --

A. Excuses me, Counsel. Could I -- the main difference is the methodology.

Q. Yes. And that's what I'm getting to.

A. You're going to -- I'll have a chance to talk about that?

Q. I'm going to ask you about that and then, if Mr. Farrell wants to ask you more questions about that, he can.

Right where I was going was this top paragraph here. Do you see that top paragraph?

A. Yes.

Q. And they say there are several reasons why the CEA estimate is much larger than those found in the prior literature. Do you see that?

A. Yes.

Q. And they say, "First, and most importantly, we fully account for the value of lives lost based on conventional methods used routinely by federal agencies in cost benefit analysis for health related interventions."

Do you see that?

A. I'm glad you're reading that one, yes.

Q. Yes. And that's what I think you were just alluding to, right?

A. That's the one I really agree with.

Q. And that's the VSL, correct?

A. That's the VSL. That's the numbers that show up in my report.

Q. They identify a second point, the crisis has worsened, especially in terms of overdose deaths which have doubled in the past ten years, right?

A. Yes.

Q. And you understand that goes to the heroin and fentanyl problem we talked about, right?

A. Well, and that the direct attribution is to fentanyl and heroin, yes.

Q. And then they say, "Third, while previous studies have focused exclusively on prescription opioids, we consider illicit opioids, including heroin, as well."

Do you see that?

A. Yes. Yes.

Q. All right. And just to be clear -- I want to make sure the record is clear on this point. In your work you consider illicit opioids, including heroin, as well, correct?

A. Well, this was, again, the province of the epidemiologist and what Professor Keyes did in this case was to derive estimates of the share of deaths in which the death certificate indicated fentanyl and heroin and that were due to prescription opioids. So, I used it in my report, but the analysis was done by Professor Keyes.

Q. Right. And just to be sure we're on the same page for both your death estimates and your morbidity estimates, you understand that Dr. Keyes took cases involving heroin and fentanyl and made a judgment based on her gateway theory as to how much of those were attributable to prescription opioids and you included those numbers in your calculations, correct?

A. That's correct.

Q. Thank you. And so, just to round out this document, please -- and, actually, one point on this just so we're absolutely clear. Could we show Demonstrative 245, Page 5? It's the slide set that you were shown by Mr. Farrell. I just want to make sure we have it clear for the record. Demonstrative 245, please. And if it's easier to put it up

on the ELMO, I can switch to the ELMO.

There we go. Could we go to Page 5, please?

Just so we have it for the record, these numbers include deaths due to heroin and fentanyl where Dr. Keyes has performed an attribution of prescription opioids, correct?

A. That shows up in the first row of that table, yes.

Q. And then if we go to the next page, this includes healthcare costs involving people who have used heroin and fentanyl where Dr. Keyes attributes it to prescription opioids, correct?

A. That's also correct, yes.

Q. And just so I'm clear on this table, you did not -- when you -- when you came up with this number, this $494 million number or -- yeah, $494 million, you did not apply any offsets for healthcare costs covered by, for example, the federal government or the state government, correct?

A. I'm not sure what you mean.

Q. I mean that includes costs covered by the federal government and the state government, that amount, correct?

A. Those amounts are caused by third-party payers. Medicare is a government program. Medicaid is a government program. And commercial is mostly private. Uninsured, those are borne by, you know, sometimes local government, sometimes the providers themselves.

Q. Do you know of any specific amount covered by Huntington?

A. That wasn't my task.

Q. So, no?

A. So, no, I don't know.

Q. Do you know any specific amount covered by Cabell County?

A. Same answer.

Q. No?

A. No.

Q. All right. So, let's just finish up with the Council of Economic Advisors study, if we can go back to P-41886. I want to just go back to that table, if I could, on Page 9. Could we go to Page 9, the table at the bottom right there? We talked a few moments ago about how the CEA study was different from the prior three studies. Do you remember those three or four studies?

A. Yes, I do.

Q. And they actually explain the differences and similarities across the top, correct, in the columns?

A. In the -- yes. Yes.

Q. For example, the point you raised, fatal costs, they say -- they do value of statistical life where others do earnings, correct?

A. Yes. That's what I wanted to be sure and talk about.

Q. We'll give you that chance.

A. Okay.

Q. That may be opioids included, correct, and they say prescription and illicit for CEA; prescription only for the other three studies, correct?

A. That's correct.

Q. And then here's the point I wanted to just close on. They give us in the far right column multipliers. Do you see that?

A. I see that.

Q. And so we understand how this works, these are multipliers determining how much bigger than the prior studies the CEA study is, correct?

A. I see that.

Q. And so, it's one for the CEA study because it's literally one times the amount, right?

A. Yes.

Q. And for the earlier studies, the CEA study ranges from being 6.3 times higher to 4.8 times higher, correct?

A. You are reading that correctly, yes.

Q. Okay. And one of those differences, not the only difference, but one of those between the studies that accounts for that spread, one of the differences is including illicit opioids, correct?

A. That's correct.

Q. Last set of questions, Doctor. If we could go back to your slide set, please.

A. I'm sorry. I was promised the ability to talk about that earlier methodology.

Q. I thought we had, but I will let Mr. Farrell give you further opportunity if there's further you want to say.

A. I do.

Q. I think, and I will speak for some people in the room, that we heard a lot on it, but if Mr. Farrell wants to ask more on it, he can.

MR. SCHMIDT: Could we show Demonstrative 245, please?

THE WITNESS: If you can put up the table that we were just looking at, that would be helpful.

MR. SCHMIDT: I'm going to finish up with something else, sir.

THE WITNESS: Oh, all right.

BY MR. SCHMIDT:

Q. Could we go to Page 2, please? Do you recall talking about -- this is your core methodology, how you calculated deaths, how you calculated morbidity. Do you see that?

A. Yes.

Q. And what you did as the source of your count was for deaths you looked at calculations performed by Dr. Keyes, correct?

A. Yes.

Q. And for morbidity you looked to calculations performed by Dr. Keyes?

A. Yes.

Q. And what that means is if her numbers change at all that changes all of your numbers, correct?

A. Yes.

Q. And, in fact, that's already happened, correct?

A. Yes.

Q. Let's just take a look at it so that we all know what we're talking about. I'm going to show you two errata sheets you served in this case. Do you recall serving two errata sheets to your numbers in this case based on changes that Dr. Keyes made?

A. I do.

MR. SCHMIDT: May I approach, Your Honor?

THE COURT: Yes.

MR. SCHMIDT: And so we have it for the record -- did I short you one copy?

COURTROOM DEPUTY CLERK: Yes.

BY MR. SCHMIDT:

Q. So we have it for the record, I've given you two documents that I understand you prepared. The first is landscape presentation and it says, "Errata sheet for the 8/03/2020 expert report of Dr. McGuire." Do you see that?

A. I do.

Q. And my understanding is this is one you served and it doesn't have a date, at least that I see, but you served it August 24, 2020, correct?

A. That seems correct, yes.

Q. And then the second one does have a date. It's letter oriented. It's September 23rd, 2020, correct?

A. Yes.

Q. All right. Let's look at the first one. Actually, could we put them side by side just so -- I just want to illustrate this point about using Dr. Keyes' work.

So, on the left we have the August 24th, 2020 and, hopefully, in a moment on the right we'll have the September 23rd, 2020.

And what we see is on the left, the top row, you're making changes to your numbers. Do you see that?

A. Yes, I have it here.

Q. And you explain that by input change in Dr. Keyes' report. Do you see that?

A. Yes.

Q. And do you know why she had to make that change?

A. Just generally, I think. And it might have been across both of these, but I think there was a -- some kind of input error or early version of a count that was used inadvertently. I'm not a hundred percent sure. She would,

of course, be the one to ask about that, not me.

Q. Do you know what the nature of the input error was, why it occurred?

A. I don't know the details, no.

Q. And then, if we look at the second one, there is, again, another change. Do you see that?

A. Yes.

Q. The second one being the one from September 23rd, 22020 and, again, this time the change is because of Dr. Keyes again adjusting her numbers. Do you see that?

A. Yes.

Q. And do you know why she adjusted her numbers that second time?

A. Well, I just have a general understanding that I stated in response to your previous question.

Q. You couldn't specifically articulate what the error was the second time around and why she had to fix it?

A. Well, this details the actual change, but I'm not sure about the cause.

Q. Okay. So, let's just stick with the August 1. If I go down the August 1 and just look in the right column where it says that the reason for the change is because of Dr. Keyes, I see 1, 2 -- 19 different changes you had to make to your numbers because of this first change that Dr. Keyes made; is that correct?

A. That sounds okay, yeah.

Q. And then, if we look to the second one from September 23rd, 2020, I'm not going to count them up, but it goes Page 1, Page 2, Page 3, Page 4 -- through Page 4 of changes that you had to make to your report because of changes Dr. Keyes made?

A. Yes.

Q. And just so I ask, you did -- let's take the OUD numbers. That was one of the changes she made twice, correct?

A. Yes.

Q. You didn't independently research the number of OUD cases? You relied on Dr. Keyes for that, correct?

A. I relied on Dr. Keyes for her estimates, yes.

Q. And when you looked at her original numbers, the ones that she changed twice, and she said that for 2018, for example, a hundred percent of her deaths due to opioids were due to prescription opioids, it didn't occur to you that that seemed wrong or odd, correct?

A. It didn't strike me.

Q. And there's no criticisms you can recall having given her of her numbers, correct?

A. That's correct.

Q. Despite these two corrections, right?

A. That's correct.

MR. SCHMIDT: Thank you, Dr. McGuire. That's all I have.

THE COURT: Let's take about ten minutes and then we'll come back and finish with Dr. McGuire.

And you may step down during the break.

MR. SCHMIDT: And, Your Honor, thank you to the Court. I didn't realize I went a little long. Thank you for letting me go a little long just to finish.

THE COURT: Thank you.

(Recess taken)

(Proceedings resumed at 10:42 a.m. as follows:)

THE COURT: Are we through with the cross?

Ms. Callas?

MS. CALLAS: No cross, Your Honor. Thank you.

THE COURT: You stood up. I thought you were ready to go.

All right, Mr. Farrell.

REDIRECT EXAMINATION

BY MR. FARRELL:

Q. Dr. McGuire, let's start with the errata. Within your field of economics, is it uncommon for calculations to change or to be adjusted over time?

A. No. I've made some mistakes myself sitting here.

Q. And, in fact, the errata changes that you made in this case lowered your numbers, did they not?

A. Yes, they did.

Q. And I'm probably going to butcher this, but the Institute of Medicine's Defense WV 03688 on chronic pain, Relieving Pain in America, I'm going to try not to -- I'm going to try to figure this out. This article was about the economic cost of pain in America; correct?

A. It was.

Q. On your labor workforce; correct?

A. You know, I don't remember what the valuation was of pain. I don't remember.

Q. That's fair. I'm not trying to make that point. This isn't a report about the economic benefits of opioids; correct?

A. Exactly.

Q. This is an economic report on the impact of pain on the labor force. Have you, in fact, done an economic analysis of opioids in the workforce?

A. I have reviewed the studies that have investigated the role of prescription opioids.

THE COURT: Ms. Hardin.

MS. HARDIN: Objection. I think it's beyond the scope. I think the first questions that I asked the doctor made clear that he didn't testify this morning about benefits at all.

THE COURT: Well, it is beyond the scope, isn't

it, Mr. Farrell?

MR. FARRELL: But there was a small crack in the door.

THE COURT: I'm going to sustain the objection. The crack wasn't big enough.

BY MR. FARRELL:

Q. And then before I let you explain what you want to explain, I do want to bring up in the CEA report -- and I hope this is consistent with what you're about to explain.

You were asked about the first sentence, "Opioids are largely effective for their main prescribed uses of reducing acute pain and as anesthesia during surgery."

Will you read the second sentence into the record?

A. It says, "A side effect of these beneficial treatment effects is that they also have high potential for abuse which can lead users to substitute to more lethal opioids without accepted medical uses such as heroin or illicitly produced fentanyl."

Q. And this is the findings of the Council for Economic Advisers to President Trump; correct?

A. That's correct.

MR. SCHMIDT: Objection, Your Honor. It's one thing for him to read it. He didn't give an opinion on this topic and it's outside of his expertise.

THE COURT: Well, overruled.

Go ahead, Mr. Farrell. Let's get through it. Let's go.

BY MR. FARRELL:

Q. And then methodology wise I'm going to reference on Page 3 do you see where I've put the purple star?

A. Yes.

Q. And the CEA report itself says that it's applying conventional methods. Do you agree the CEA's assessment used conventional methods?

A. I do, yes.

Q. And then a final question is -- you asked for the opportunity to explain Table 3. And I'm not going to pretend I know why. I'm just going to say you wanted to have something to say about Table 3. Explain what you found.

A. Well, counsel made the point looking at Table 3 that the estimates by the CEA were larger than the estimates in these other studies. And he pointed out one important difference, which was the scope. The CEA was concerned with all opioids, and the other three studies were concerned with prescription opioids.

But there was one other difference that you see in this table, that the fatal costs were valued according to a different methodology. And it says here "earnings." Now, I

just wanted to explain to the Court what that was.

Earnings as a valuation is a measure of the future earnings that an individual would lose if they die. Okay? So what about 65-year-olds? What is the value of a life of a 65-year-old according to the earnings methodology? It's zero. I would be zero. Maybe other people in the courtroom would be zero. Women are penalized because they earn over a lifetime, for many reasons, lower wages than men. So the value of a life of a woman is less than the value of the life of a man.

So I totally agree with the CEA that the conventional and more comprehensive methodology that is employed by federal agencies at the recommendation of the Federal Government is the right way to go in this case.

MR. FARRELL: Thank you. No further questions.

THE COURT: Any recross, Ms. Hardin?

MS. HARDIN: No, Your Honor. But when the witness is excused, I would like to address the Court.

MR. SCHMIDT: No more, Your Honor.

THE COURT: All right.

Dr. McGuire, I can excuse you now. I enjoyed your testimony and I'm going to do my best not to hold against you the fact that you went to Yale.

THE WITNESS: I know why you're saying that. Thank you, Your Honor.

THE COURT: And you're free to go. Thank you, sir.

THE WITNESS: Thank you.

MS. HARDIN: Your Honor, now that Dr. McGuire's testimony is complete, the defendants would renew their *Daubert* challenge. I think that the testimony has confirmed that his expertise that he has offered on the stand today has no fit or relevance to this case.

He has done what seems to be an academic exercise of multiplying his calculation of a value of a life by certain estimates given by Dr. Keyes that has absolutely nothing to do with the defendants' conduct. He's not calculating the amount of harm that result from any sales and distribution by the defendants not even on a wholesale basis, much less calculating the harms that result from any actionable or unreasonable conduct on the part of the defendants.

THE COURT: So your *Daubert* attack is not on his qualifications. It's on the relevance of what he said were the issues in this case if I understand you correctly.

MS. HARDIN: Right. I don't challenge the fact that he seems to be a quite accomplished health economist. But he had nothing to say that was relevant to this case this morning, Your Honor.

The *Daubert* -- when we made the *Daubert* challenge to him back during the, the pre-trial period, the

representations were made by the plaintiffs that his weighing analysis -- because what he purported to do in his report was to net the cost and benefits.

Now, he didn't assign any value to those benefits and, so, we had a challenge to that. But what -- the representation that was made is that that weighing of the cost and benefits --

THE COURT: He didn't weigh the cost and benefits, did he?

MS. HARDIN: He did not today and we disputed that that's what he was doing even before he came to the stand. But I think he made it quite clear that's not what he was doing.

And, so, if the representation made that this is somehow relevant to the weighing and costs and benefits for a public nuisance, which we would itself object is relevant. But even so, taking the plaintiffs at their word about what he was going to do is not what he did.

He didn't say anything about the defendants. He can't say anything about the defendants. He said it would be beyond his expertise to say anything about the defendants.

So what we're left with is some numbers that he multiplied in an academic exercise in an effort to get some extraordinarily large numbers in front of the Court that have nothing to do with the defendants' conduct.

So we would ask that his testimony be stricken from the record, Your Honor.

THE COURT: Shouldn't that -- well, let me hear from Mr. Schmidt.

MR. SCHMIDT: I would just join to the point to underscore the fact that this is a case about prospective relief, not retrospective relief. He only touched on retrospective relief.

I believe Mr. Farrell elicited he's not addressing prospective relief. There's statement after statement from the plaintiffs:

Docket 125, Page 1, note 1. Plaintiffs waive past damages for economic losses sustained by the Cabell County Commission and City of Huntington.

Docket 225. Plaintiffs have waived all claims for damages, including punitive damages.

Plaintiffs' public nuisance claims seeking only the equitable remedy of abatement are not tort actions. That's Page 5 of Docket 225, and again and again.

Docket 813 at 2. Plaintiffs' public nuisance claim seeking abatement as an equitable remedy are not tort actions for compensatory damages.

So in addition to Ms. Hardin's point that his past numbers don't relate to the facts of this case in terms of the defendants, he also doesn't address what the claim is

actually about, which is future relief.

THE COURT: Well, since he's qualified and the issue is relevance, doesn't this go to what weight, if any, I should give his testimony rather than just kicking it out all together?

MS. HARDIN: I don't believe so, Your Honor. I mean, one of the, the foundations of the *Daubert* analysis is a gatekeeping analysis. It is not just let it in and consider it once it's in. It's: Is it proper expert testimony in the first place?

And, again, not challenging his qualifications, which seem completely legitimate, but he had nothing relevant to say here. And as part of Your Honor's gatekeeping function, we submit that he should not have been allowed to testify in the first place.

We understood Your Honor wanted to see and hear the testimony. And now that that's happened, we think that you're in a position to say that he didn't meet the *Daubert* standard in this case and you would not only give it what weight you find, but strike it all together. I'm sorry. Please.

THE COURT: I remember reading in one of those cases that in a bench trial, you should be very liberal because you're keeping the gate for yourself.

Do you have anything to say about that?

MS. HARDIN: I certainly appreciate that, Your Honor, and I think that's what we've done here. I understand you didn't want to cut the testimony off before you were able to hear it which would be very prejudicial in a jury trial.

You are in the position to be able to take the testimony and listen to it. And I think that's the benefit of the bench trial. But we've done that exercise now. He's come, he's testified, and we think it should be disregarded.

MR. SCHMIDT: Just to add to that, the view we've taken on gatekeeping that I think is consistent with what Your Honor just said is if we had a jury, in many cases there would be a *Daubert* hearing on some of these experts and Your Honor would execute the gatekeeping function in the context of a *Daubert* hearing.

Here in a bench trial, it's kind of combined because Your Honor can serve that function as you hear the witnesses. But that underlying purpose that Ms. Hardin was referring to of *Daubert* to keep unreliable or non-fit expert testimony out of the record, I think that still applies in a bench setting.

THE COURT: Well, let me hear from the other side here, Mr. Farrell.

MR. FARRELL: Judge, we disagree.

So aside from the academic thing --

THE COURT: The academic thing is not a problem. What about the relevance?

MR. FARRELL: So we are tasked with establishing to this Court that there is an unreasonable interference with a right common to the general public, unreasonable.

So what we are attempting to do is we are attempting to not only demonstrate the unreasonableness by virtue of fatalities and morbidities, but we're attempting to put before the Court some objective measure of how unreasonable it is, how much of an unreasonable interference it is.

If we were to come here and say that the economic impact on the community was $10, you might say, "Paul, that's not an unreasonable interference with the community."

But what we've done is using standard methodology, we are putting a -- we are objectively defining this interference in dollars, which I believe are significant.

We're not asking this as a component of damages. We didn't even go so far as to put into the record a balancing to establish the ultimate question --

THE COURT: Is Dr. McGuire's testimony part of the basis for your ultimate evidence on damages -- not damages but abatement costs?

MR. FARRELL: No. His evidence is to whether or not the interference was reasonable or unreasonable. He is, he is taking what Dr. Keyes has identified as the related

harms of the opioid epidemic and he has put an economic value on it for the finder of fact to apply appropriate weight in making a determination as to whether or not the interference was unreasonable.

THE COURT: And you're saying the numbers -- his bottom line numbers are a factor on the reasonableness of the interference?

MR. FARRELL: Well, if Kerry Keyes defines related harms from the opioid epidemic and Dr. McGuire says those related harms have an economic cost of $3.2 billion in a community of 100,000 people, I would think that that would be, that would be a factor that a trier of fact could weigh when making a determination as to whether or not the interference is reasonable in the existence of a public nuisance.

THE COURT: Okay. Ms. Hardin.

MS. HARDIN: If what the purpose of Dr. McGuire was was to weigh in on our liability, then I think it's crystal clear that he has nothing to say about that.

He did not calculate the harms attributable to our conduct, our sales, our reasonable conduct, our unlawful conduct. Had absolutely nothing to do with that.

And Dr. Keyes, we established, had nothing to say about the distributors or their conduct. And, so, you can't add Dr. Keyes to Dr. McGuire and get anything that is relevant

to this case. He is a health economist. And in some cases, he might have relevant things to say, but it wasn't this case, Your Honor.

MR. SCHMIDT: And just to add to that, Your Honor, Ms. Hardin made the point, which she very ably established on cross, that he didn't do any kind of allocation that would support the proper basis which is reasonable versus unreasonable.

In addition to that, he didn't weigh the benefit in his testimony, so it's just cost. Of course, there would have to be weighing of benefit. And he didn't evaluate it in any way in terms of the plaintiff here. The only costs he acknowledged he knew where they were from were costs to the Federal Government, who's not a plaintiff here, and the state, who's not a plaintiff here. He couldn't allocate any to the plaintiff here.

MR. ACKERMAN: Just briefly, Your Honor, I think with respect to the relevance, Mr. McGuire -- Dr. McGuire's testimony establishes the existence of a public nuisance, which is one of the things we have to establish.

And with respect to all that you have heard from the defendants' counsel, that all goes to the weight of the testimony and not to its ultimate admissibility.

THE COURT: How does his testimony in and of itself establish the existence of a public nuisance?

MR. ACKERMAN: It, it -- exactly in the way that Mr. Farrell described, because it establishes a quantification of the harm that resulted from opioids in the community. Whether or not defendants claim they are responsible for that harm is a separate question.

THE COURT: Last shot here, Mr. Farrell.

MR. FARRELL: This is not an extraordinary leap for us to be able to sustain to enter into evidence on relevance.

You know, this would be no different if it were a fire or if it were the Exxon Valdez or the BP oil spill. There is an impact on the community.

How do we define that impact? Well, we've defined it through the abuse, addiction, morbidity, mortality. And this is a -- and Your Honor has probably seen in the newspaper repeated reports from the Pew Foundation and the Kaiser Foundation --

THE COURT: If there's no impact, there's no nuisance; right?

MR. FARRELL: Correct.

MS. HARDIN: Your Honor, the legal definition of a nuisance is an unreasonable interference. It focuses on the conduct of the defendant.

This testimony had nothing to do with the conduct of the defendants. We're not here to estimate the costs of the

opioid epidemic. We're here to determine if these defendants did something unreasonable that interfered with a right common to the public. And Dr. McGuire's testimony has absolutely nothing to do with any of that.

THE COURT: Okay. I'm not going to rule on this right now. I'll give it some thought and rule on it at some appropriate time. But I realize this is a significant issue and -- well, I'll leave it at that.

Do you want to call your next witness, Mr. Farrell?

MR. FARRELL: Be my pleasure. Ann Kearse is taking the lead.

MR. ACKERMAN: We need a minute to shuffle the deck, Your Honor.

THE COURT: I'm sorry?

MR. ACKERMAN: We just need a minute to shuffle the deck.

MS. KEARSE: Good morning, Your Honor.

MS. WICHT: Good morning, Your Honor.

While we're calling the witness in and getting organized, I just wanted to take the opportunity to introduce the Court to my colleague who will be handling this witness since you have not heard from her yet today.

This is Isia Jasiewicz.

MS. JASIEWICZ: Good morning, Your Honor.

THE COURT: Good morning. Welcome yet another

lawyer.

MS. JASIEWICZ: Thank you.

THE COURT: I was just getting all the names straight. I think your name has appeared before in the papers.

MS. JASIEWICZ: Yes, it has.

MS. KEARSE: Your Honor, the plaintiffs call Dr. Judith Feinberg.

THE COURT: Dr. Feinberg, if you'll stand right there, the clerk will give you your oath.

THE CLERK: Please state your name.

THE WITNESS: Judith Feinberg.

THE CLERK: Please raise your right hand.

JUDITH FEINBERG, PLAINTIFFS' WITNESS, SWORN

THE CLERK: Thank you. Please be seated.

THE COURT: Good morning, Dr. Feinberg.

THE WITNESS: Good morning.

DIRECT EXAMINATION

BY MS. KEARSE:

Q. Dr. Feinberg, can you please introduce yourself to the Court?

A. Pardon me?

Q. Can you please introduce yourself to the Court? State your name for the record.

A. Oh, Judith Feinberg.

Q. And, Dr. Feinberg, what is your occupation?

A. I'm a physician. I'm specifically an internist with special training in infectious diseases.

Q. And, Dr. Feinberg, do you currently hold any academic positions?

A. I do. I have several at the -- at West Virginia University School of Medicine. I'm a Professor of Behavioral Medicine and Psychiatry. I'm also a Professor of Medicine in the section of infectious diseases. And I'm the Doctor E.B. Flink Vice Chair of Medicine for Research.

Q. Doctor, did you help create some slides today that will aid in your testimony and provide information to the Court today?

A. Yes.

MS. KEARSE: Your Honor, may I approach?

THE COURT: Yes.

MS. JASIEWICZ: Your Honor, I would like to state an objection just for the record.

We received a copy of the slide deck to be used with Dr. Feinberg around midnight last night for the first time. And since we've been sitting here since the mid-morning break, we received a new version that Mr. Ackerman sent at 10:42 a.m.

Mr. Ackerman represented in his email that there have not been substantive changes to the deck, but he did not

specify what is different about this deck.

Just on a quick look, it appears like there are some slides that were removed. And, so, as a result, the slide numbers are different.

I just wanted to note that since we have not had an opportunity to review the deck to see whether there were, in fact, any changes that we would characterize as substantive.

MS. KEARSE: Yes, Your Honor. I believe there was a typo and some name things on that too that the doctor wanted to make sure was accurate.

THE COURT: Okay. I'm going to let you go ahead. Your objection will be noted for the record.

MS. JASIEWICZ: Thank you, Your Honor.

MS. KEARSE: May we please go ahead and put up 001 and then 002?

BY MS. KEARSE:

Q. I think, Dr. Feinberg, you just went over where you are. I'd like to -- go over with the Court a little bit of your educational background.

MS. KEARSE: If we can go to slide 2, Gina.

BY MS. KEARSE:

Q. Can you go over with the Court just your education and what you studied and walk us through the various --

A. Sure, sure. I got my Bachelor's Degree at the University of Chicago. My major was Russian civilization

which was really a focus on Russian history and Russian literature.

And then I undertook graduate training at the University of Chicago. Again, my topic of study was Russian history.

I completed all the course work and my language exam for a Ph.D., but I did not write a dissertation. So I don't have, I don't have a Ph.D.

Then a number of years later I had to go back to college to do all the pre-medical course work that would be required for applying to medical school. So I spent two years at the University of California at Berkeley taking physics and chemistry, organic chemistry, calculus, all the things I hadn't taken in college.

And then I did go to medical school in Chicago at Rush Medical College.

And following that, I was trained in -- did my internship and residency in general internal medicine at Rush-Presbyterian-St. Luke's Medical Center also in Chicago.

And following that, I did a fellowship in infectious diseases at UCLA.

Q. Doctor, you currently have -- you currently have a medical license?

A. Pardon me?

Q. Are you currently licensed to practice medicine?

A. Yes, I am, in both Ohio and West Virginia.

Q. And do you also have hospital privileges in both Ohio and West Virginia?

A. Yes, I do.

MS. KEARSE: Gina, number 4.

BY MS. KEARSE:

Q. Doctor, do you hold board certifications?

A. Yes.

Q. And --

A. Those are --

Q. Can you tell the Court what board certifications do you hold?

A. So the National Board of Medical Examiners is a three-part exam that you take during medical school. Two of them were at the end of the second year, one at the end of the fourth year. And the third you take at the end of your internship year. That's to test basic medical knowledge across the various fields of medicine.

And then following my internal medicine training, I passed the boards for the American Board of Internal Medicine.

And then after my infectious disease training, I passed the subspecialty board in infectious diseases.

Q. Doctor, how long have you been seeing or evaluating patients with infectious diseases?

A. Well, let's see. If you start with -- I mean, I started seeing patients with infectious diseases, of course, as a medical student and certainly during training. So I don't know exactly -- the start of my third year of medical school would have been July, 1977.

And then, you know, of course, after board certification in infectious diseases, that's really what I did full-time.

Q. That was 40 years or so?

A. About 40 years. I earned all this gray hair.

Q. Doctor, I'd like to spend a little time going over some of your research and experience before we get to some of your opinions today.

MS. KEARSE: Gina, can you go to 03, please?

THE WITNESS: So I think I -- what you see on this slide are the major positions that I've held since completing all of my training.

So after fellowship, I had a research position at Schering Corporation involving the development of a new antibiotic, and then later involving the development of interferon, alpha interferon for infectious diseases.

I was recruited from Schering by the National Institute of Allergy and Infectious Diseases because one of the projects I was working on at Schering was the potential use of alpha interferon as a treatment for AIDS. And I did that

work with collaborators at NIH with Cliff Lane who's now I think the second in command to Dr. Fauci at NIAID.

And, so, they got to know me and I got to know them. And when they decided that they really needed to have a dedicated part of the institute for HIV and AIDS, they recruited me. I believe I was employee number five or six.

I went to NIH in the fall of 1986 and spent four years there really developing the research structure that exists across the country in major medical schools to do clinical studies of medications in HIV, AIDS.

So this isn't lab work. This is work directly with patients to treat the, the HIV itself, to treat the infections and cancers that constitute AIDS; in other words, the complications of HIV disease, and then also to explore the prevention of some of these infections. I was involved in some very famous studies and they're in my CV.

Q. Can you highlight just a couple of those for the Court if we're talking about a time period?

A. Can I --

Q. Can you just highlight a couple of those for the Court?

A. Oh, well, one of the things that I developed but then handed over to another medical officer, so I'm not on the publication, is the prevention of HIV in mother to child transmission which is a famous study called 076 that showed that we could decrease the transmission of HIV to a newborn

by two-thirds.

And I was involved in seminal, many seminal studies to treat pneumocystis pneumonia, which is the most common manifestation of AIDS, cytomegalovirus retinitis that causes blindness in people with AIDS, a number of other infections, toxoplasmosis, histoplasmosis. These are all quite serious and sometimes fatal infections in people with AIDS.

I was also involved in the additional studies of HIV medicines in children. So the first two drugs, AZT and DDI, that were used in adults, and then I was responsible for designing those studies and getting them conducted in children.

Q. Okay. And if we can continue with some of your continued research and experience at Johns Hopkins?

A. I was recruited from NIH to join the Division of Infectious Diseases at Johns Hopkins. And, so, I did very much on the investigator side in the field as I had -- it was the flip side of what I had been doing as a medical officer at NIAID, you know, moving the, the research agenda forward.

And during this time, I served as Vice Chair and then Chair of -- there were two big committees in this structure. The structure is called the AIDS Clinical Trials Group. And there are two big committees, one for the treatment of HIV and one for the treatment of, prevention of opportunistic

diseases that complicate HIV and AIDS.

And, so, I was Chair and Vice Chair of the Opportunistic Infections Committee during that time. And --

Q. Were you recruited again to somewhere else?

A. I was recruited then to the University of Cincinnati to run their HIV program. And that was a wonderful opportunity to be in charge of a program.

So I went to Cincinnati, but they loaned me back to NIH for a little over a year, year and a half. And that's the part that says Office of AIDS Research.

Congress passed a law that established the Office of AIDS Research. So I was one of the initial five subject matter experts that reported to the Director of the Office of AIDS Research. His name was William Paul. He's a well-known immunologist.

So I did that sort of in transition from Hopkins from Baltimore to Cincinnati. And each institution -- what's the word for it -- interagency agreement. Each institution signed an agreement to loan me back to NIH even though I really was a faculty member during that time.

Q. And it looks like you made it to West Virginia. Were you recruited to WVU?

A. I was. I retired from the University of Cincinnati in December of 2015. I was two weeks shy of 70. And the folks at WVU had been talking to me, and I was convinced that this

was the place to come because I had already started in Cincinnati working on the infectious and medical complications of opioid use disorder.

And at the time I was being recruited, then Governor Tomblin said heroin is West Virginia's number one problem. So I thought, well, I've got to come here then because I really was at that point really focused on opioid use disorder and its associated infections.

I kind of moved over a ten-year period from like 2005 to 2015, had moved from the HIV field into the addiction field.

Q. And we'll get into more detail into that. I want to quickly go through some of your other qualifications as well.

MS. KEARSE: Gina, 05.

BY MS. KEARSE:

Q. Doctor, are you also a member of professional organizations in your field?

A. Yes. I'm a member of a lot of organizations, and I'm a fellow, which is kind of an advanced status from -- for the American College of Physicians, which is the internist organization, and for the Infectious Diseases Society of America which I think is self-explanatory.

Q. Right. And do you serve on any boards or prior boards or -- the American Academy of HIV Medicine or HIV Medicine

Association? Are those two recent organizations?

A. So there are two professional organizations for people who are involved in HIV and AIDS. One is the American Academy of HIV Medicine. It's slightly different focuses.

So the academy focus is really on supporting clinicians, especially educationally. We wrote a wonderful two-volume textbook about HIV for which I was one of the editors. So I was the Chair of that, the board, the national board for that organization. I think it was 2000 to 2002.

And I am currently the past Chair -- it's a four-year process to go from Vice Chair to past Chair -- for the HIV Medicine Association. And that organization is much more focused on policy. We spend a lot of time talking to -- testifying in Congress, talking to our elected representatives about the funding and the, you know, the funding for care, the funding for research. So it has, it has sort of a different focus, and I'm in my last year of service for that.

MS. KEARSE: Gina, 007.

BY MS. KEARSE:

Q. Doctor, we may have highlighted some of these already, various committees that you're involved in. And just to highlight one or two of these for the Court in your active role for both, you know, either

local/regionally or nationally?

A. Right. So this is just a very -- a small snippet of the list because I think the list on my CV is like two or three pages, so an awful lot of committees both locally and nationally and internationally.

We just talked about at the national level the two organizations here in the United States. I've also been part of the National Academy of Sciences investigation into opioids and infectious diseases.

And I am the -- actually the founder of the West Virginia Hepatitis Academic Mentoring Partnership. It is an effort to broaden the axis of people with chronic hepatitis C. We can cure hep C now in like eight to 12 weeks. So it's broadened the axis of people across West Virginia to this, you know, amazing therapy because West Virginia Medicaid does not permit anybody other than a specialist to prescribe these medications unless you do it under the guidance of a specialist.

Well, this is not a state that has a lot of specialists. We have one hepatologist in the whole state. There's probably not 20 ID docs here. So, you know, we developed this training, and we started in March of last year. Actually, the first training was held in person in Bluefield. And then the pandemic came and all the training since has been on-line.

But we have now provided consultation for 245 people with chronic hep C across the state. And we have so far cured 97 percent of them which is -- I can't tell you how good that makes me fee. But that is a cure rate that specialists achieve.

So I've spent a lot of time in the last couple of years getting this up and off the ground. That's kind of the most major thing I've done here locally.

Q. Okay, great. And we'll talk in some more detail as well. Have you published in peer-reviewed literature?

A. Oh, sure, yes.

Q. I don't have slides for all of these, so I'll just ask you about how many articles have you published in the peer-reviewed literature?

A. I think the current number is about 150.

Q. And are there some key journals or ones that in your field that you can just list a couple of them for the Court of where your articles appear?

A. Sure. So some of these articles are in the *New England Journal of Medicine*. Some are in the *Annals of Internal Medicine*. So some of them are in general medical journals.

Others are in specialty journals like the *Journal of Infectious Diseases*, *Clinical Infectious Diseases*, *AIDS*, and a number of, a number of other journals that have, you know, a more specialized audience.

Q. And, Doctor, do your peer-reviewed publications concern harms associated with opioid use disorder?

A. Yes, some of them do.

Q. And deal with the opioid epidemic in West Virginia?

A. Yes.

Q. And harms associated with injection opioid drug use?

A. Yes, both overdose and the infectious complications.

Q. And would they include concerns over HIV?

A. Pardon me?

Q. Would they include concerns over HIV?

A. The most -- yeah, the most recent paper that was published in *The Lancet* a couple of months ago addresses the issue of HIV and its connection to the opioid epidemic here in the United States. And, you know, the hardest hit area, of course, is --

Q. How about hepatitis?

THE COURT: Just a minute. Ms. Wu.

MS. WU: Your Honor, I hate to interrupt, but the witness is now testifying as to an article published in 2021 which was not disclosed in connection with her opinions in this case. And, therefore, we ask that she not be allowed to testify concerning that article.

MS. KEARSE: This is just basically foundation. We're not going into the article.

THE COURT: You're referring to it as part of her

qualifications?

MS. KEARSE: Yes, Your Honor.

THE COURT: Overruled. You can go ahead.

BY MS. KEARSE:

Q. Doctor, have you published also about endocarditis?

A. Pardon me?

Q. Have you also published about endocarditis?

A. Yes, I have, also as a complication of injection opioid use.

Q. And, Doctor, you served on editorial positions on various journals?

A. I have. I have had a number -- served on a number of editorial boards.

Q. And in your role as -- at WVU, do you also -- are you involved in teaching?

A. Yes. I teach at a number of different levels. I teach -- I actually have mentored some college students who are interested in opioid use disorder and research. So they would spend the summer with me.

I teach medical students. Again, this is pretty much focused on the ones who are interested in infections and interested in -- and/or opioid use disorder.

I give specific talks, lectures to the trainees in behavioral medicine and psychiatry. I give specific lectures to the -- we have an addiction medicine fellowship

in our department and I give specific lectures to the individuals spending a year with us to get additional certification as addiction treaters. These are people who are already trained in like internal medicine or family medicine and now they're acquiring another level of expertise.

Q. Dr. Feinberg, have you received grants as they relate to opioid use disorders and their associated risks for contracting infectious diseases?

A. I think all of my current funding is related in one way or another to opioid use disorder. Sometimes it's related to the safety of using certain drugs. So I have a grant from NIH to evaluate the use of fentanyl test strips so people can check to see if there's fentanyl in their drugs.

But most of the funding -- and I -- and there's a state -- a grant that's federal money through the state to expand treatment for opioid use disorder for people who come to emergency rooms asking for that kind of help. But most of the grants are focused on the infectious complications.

Q. And does your work involve working with communities in aid of prevention of infectious diseases resulting from injection opioid use?

A. Yes. My work here in West Virginia has really focused in sort of two geographic areas. One is Monongalia County, of course where WVU is. But the majority of the work that I

have done and continue to do is in the southern coalfields; so, you know, the bottom third of the state and these are counties that border Kentucky and Virginia.

That's why we hold -- held the first hepatitis mentoring partnership training in Bluefield because it's those counties, Mercer, McDowell, Mingo, Wyoming, Raleigh, Logan, Boone that have the highest rates of hepatitis C in the state. So, you know, we wanted to start where the need was greatest.

Q. Before coming to West Virginia, did you also work with various communities when you were working in Ohio?

A. I did. I did because I -- it took nine years, but I eventually founded Ohio's third syringe exchange and -- but its first true syringe services program, so more than just sterile needles for used ones, but, you know, a whole range of other services; testing for HIV and hep C, referrals for substance use disorder care, you know, all the other things that are part of a more complex program.

Overdose education and naloxone distribution, I had a grant from the Ohio Department of Health to do that. And that involved a great deal of work with local communities in metropolitan Cincinnati.

MS. KEARSE: Gina, 06.

BY MS. KEARSE:

Q. I want to ask you one more follow-up and then I'm

going to ask the Court's permission to have you testify today.

So quickly on 06 I just want to highlight the grants. Are these some of the grants that you're working on that are specific to your field and specific to West Virginia?

A. Yes. Sorry.

Q. Some of the grants, just two examples of grants for your work in rural West Virginia?

A. Right. These are two of the -- I think I have something like six current active federally funded grants. And I think I mentioned -- let me put my eyeglasses on.

Q. And, Doctor, I think it should be on the screen right next to you if that helps. Right next to you there's a screen as well.

A. Actually, I don't see that page here. So just to make it easy, I think that the Rural West Virginia Responds to Injection Opioid Epidemics, that's the grant that is now completed and we're analyzing the data, so it hasn't been published. But that is the grant that we had from NIDA to work in these southern coalfield counties.

Expanding Overdose Aftercare and Peer Recovery Services, this is federal money through the state that -- it's actually CDC money that comes to the state to, as I mentioned, to engage people who come to the emergency room asking for treatment to begin Suboxone, Buprenorphine

treatment in the emergency department and then refer them -- give them three days' worth of medication and then refer them, link them to a community provider. After all, emergency departments can't be chronically engaged in managing people with opioid use disorder.

So that's two of the -- as I said, I think there's currently six grants.

MS. KEARSE: Your Honor, plaintiffs tender Dr. Feinberg as an expert in the prevention and treatment of infectious diseases associated with opioid use disorder and injection of opioid drug use.

THE COURT: Any objection?

MS. JASIEWICZ: No objection, Your Honor.

THE COURT: The Court finds Dr. Feinberg to be an expert in the prevention and treatment of infectious diseases associated with opioid use disorder and injection opioid drug use.

MS. KEARSE: Thank you, Your Honor.

THE COURT: That was an easy call to make, Doctor.

THE WITNESS: Thank you, sir.

BY MS. KEARSE:

Q. I'd like to talk a little bit about what you were asked to do in this case and some of the methodology and, and --

Doctor, are you familiar with the literature concerning

the use of pre- -- let me -- strike that. You've testified just a little while ago that you've contributed greatly to the literature; is that correct?

A. Yes.

Q. And can you tell the Court the types of documents and literature that you reviewed in order to offer your testimony today?

A. Okay. So I, I re-read a number of articles that I was already familiar with. I read a number of new papers that I had not come across before. I read a number of reports from the Bureau of Public Health about -- those were primarily focused on HIV in the state and the counties, and on hepatitis B and C in the counties, state and in the counties.

I also reviewed specific reports from the Cabell Huntington Health Department. Let's see. And, of course, I relied on, you know, almost 40 years of experience as an infectious disease physician working with patients who are struggling with opioid use disorder and the infections associated with injection drug use.

Q. And, Doctor, are these, this type of research and techniques widely accepted in your scientific community, in the medical community?

A. I hope so. I believe so. Modestly, yes, I think the answer is "yes."

Q. And are these scientific and medical principles used in forming your opinions widely used in your field?

A. Yes.

Q. And you used the same type of methodology in your academic research?

A. Yes. I mean, the -- writing this report was like writing a book chapter. It was the same kind of process you would go through that you do when you write a chapter.

You look at all the background. You look at all the accumulated data that are available, the peer-reviewed literature, but also the public health organizations, and then, you know, you form opinions and come to conclusions based on all of that.

Q. And it's the same type of research you would do in relationship to the grants that you get and the work that you do associated with those?

A. Yeah. No, it's not substantively different.

Q. Doctor, did I ask you to come here today to explain to the Court the associated harms with the injection of opioids, including HIV, HBV, HCV, and other bacterial infections such as endocarditis?

A. Yes.

Q. And did you issue a report in this case?

A. I did.

Q. And if there's some specific data -- you just mentioned

it's like a chapter of a book. If there's specific data that you'd like to look at, would you please ask me for that information and I'll ask the Court's permission to show you that report? Is that fair?

A. Yes.

Q. Doctor, I'd like to start us off in our discussion today with a quote --

MS. KEARSE: 08, Gina.

BY MS. KEARSE:

Q. -- from your report. And I'd like you to read this and I think this is going to help us get to where we're going on that too.

Can you read this to the Court and let me know if this is kind of where -- gives us a direction of where we're headed?

A. Okay. So I wrote, "Opioid overdoses are not the only life-threatening consequences of the drug epidemic. The serious infections associated with drug use and especially injection opioid use have resulted in a series of syndemics, intertwined epidemics, that are part of the complex public health crisis we are currently facing that will be described in detail below."

Q. And "detail below" is now where we're going to go within your report.

A. It was here. I just didn't turn the right page.

Sorry.

Q. And I believe there's a screen next to you as well. So there's that if you need that.

A. Thank you.

Q. I don't know -- sometimes it's easier to see there or on your slide.

A. Thank you.

Q. So, Doctor, tell us a little bit about why you came to West Virginia or what brought you to West Virginia with that as well, but why the study of infectious diseases? In general, you've been studying infectious diseases for 40 years.

A. You know, these -- there are two parts of this. And actually, you know, if you think about the history of public health, it really started with the control of infections. Right? There's the famous Typhoid Mary at the pump, the water pump in London.

So there are, there are really two aspects to infectious diseases that appeal to me. One is the individual patient. You either prevent or treat or cure or prevent death in people by appropriately diagnosing and treating these infections.

And unlike most of adult medicine, which is the management of chronic conditions that you don't cure but you just manage, diabetes, high blood pressure, you know,

cardiovascular disease, you never, you never get back to baseline in those. You can actually cure infections, some, many which is gratifying.

But it's also, you know, the very nature of an infectious disease means it's frequently contagious. And, so, there's a whole public health part of infectious diseases that's very important.

If you cure hepatitis C in somebody who has hepatitis C, then they can't give it to anybody else even if they are still injecting drugs and, you know, sharing a needle with somebody else.

So you have, you know, a major impact not only on the individual, but on the community, you know, I mean, the public health, the community. And I think that has, of course, tremendous value. And, of course, it has implications for costs and health insurance and hospitalizations and, you know, everything that goes along with people being pretty sick.

But the infections we're talking about, they're not trivial infections. You know, most of these infections are extremely serious and, in some cases, life-threatening.

So you're not going to be able to go into recovery from opioid use disorder if you're not alive and breathing. You've got to -- you have to make it to that point.

Q. What I'd like to do, Doctor -- sorry.

MS. KEARSE: 09.

BY MS. KEARSE:

Q. I'd like to start walking through some of these areas that we'll talk about today and, and your work with opioid use disorder and then the infections of concern with that.

And I'd like to briefly talk about first viral versus bacterial just, just broadly if you can explain the different types. And then we're going to go specifically into each one and just highlight for the Court a little bit about it I hope.

A. So the vast majority of the infections that people get who are injecting opioids are blood-borne infections. You are injecting material that isn't sterile and that has been prepared in unsterile equipment and injected, you know, if it's a shared syringe with now an unsterile syringe through skin that is typically not clean.

So you've got the opportunity to directly introduce organisms into the blood. And, of course, then it's easy for them to get anywhere in the body.

There are other infections like skin infections that are not so -- not involved in the blood-borne route. But the infections that cause the greatest morbidity and mortality are the ones that enter the blood.

And there's -- as you said, there's kind of two

categories. There's viral infections which includes HIV and hepatitis B and C. And then there are bacterial infections, the most common and most deadly of which is infective endocarditis, an infection of the heart valves.

But there are other serious bacterial infections that get to their target organ through the blood. So you could have a brain abscess. You could have a bone infection. You could have joint infection. So you're going to have other serious things.

And to a much more minor extent, you can also introduce fungal organisms through the skin. You sometimes see that in a small proportion of endocarditis cases. But I've really pretty much focused on viruses and bacteria. That's really what you see.

Q. Okay. So that's -- we'll walk through these so we can maybe give some definition to some of these and, and some preventative measures.

MS. KEARSE: Gina, 10.

BY MS. KEARSE:

Q. And then I'll move quickly into -- we'll start with the viral infections.

So if we can go to the next slide, number 11.

Can you tell the Court what is HIV and -- well, back up one thing to explain to the Court.

We're focused on infectious diseases as a result of

opioid drug use; correct?

A. Yes.

Q. And is that to say that some of these diseases are also caused by other ways that, that blood is, is, you know, enters into the system from different ways? Is that fair to say?

A. Yes. Well, I mean, there are -- the viral infections can also be acquired sexually. And to the extent that people with opioid use disorder engage in transactional sex, which is kind of the medical terminology for prostitution, but exchange of sex for something of value to that person, money, drugs, that is also an avenue of infection. But really what I'm focused on here is what you get from direct invasion of the blood.

Q. And we'll talk about as, as, as you see what, you know, the -- when you see a majority of that coming from drug use as well, when you can distinguish that.

So if you could tell the Court just briefly what is HIV and what is the risk of -- that you've seen about getting that, some context and background?

A. So HIV is a retrovirus. It's an RNA virus. And it's transmitted by exposure to infected body fluids. And those include, you know, blood where the largest amount of virus can be found, but also sexual fluids like semen and vaginal fluid. And also it's excreted in breast milk. So a mother

who is nursing a baby can give HIV through breast milk.

Q. What are the risks of contracting HIV with --

A. Well, specifically for people who inject drugs, every time you inject, there's a 1 in 160 chance of acquiring HIV. And, you know, of course, the more times you inject, you know, that risk accumulates.

Injection drug use is really the second most -- let's see how to say that -- the second most contagious way to get HIV.

So the most contagious, the thing that is worse most often is, again, in medical terms, unprotected receptive anal intercourse between -- especially between men. And that's got to do with the nature of the lining of the rectum and the fragility of that tissue to abrasions and tears that when there's virus and semen can enter the body.

And then the second most sort of contagious way to get HIV, the second most common way to get HIV is through injection drug use.

MS. KEARSE: Could we go to the next slide, please?

BY MS. KEARSE:

Q. And can you tell us the number of people with HIV both in the United States, and more specific to West Virginia and Cabell County?

A. Well, about -- there are approximately -- it's hard to

have an exact number, but we think there's approximately 1.2 million people in this country with HIV. About 14 percent of them don't know they have HIV. That used to be 30 percent and there's been a big effort to diagnose people.

After the introduction of syringe exchange in the 1990s, the proportion of people who were acquiring HIV through injection drug use steadily dropped over time.

And then around -- it's like, let's see, around 2010 or so that flat-lined. It, it stalled. The continued decrease among people who inject drugs stalled. And now it's on the increase. And now we're up to 9 percent of new HIV infections are in people who inject drugs; 10 percent in men and I think 7 percent in women.

And here in West Virginia -- we're going to start by saying something that isn't on the slide.

So West Virginia has always been a low incidence, that's new infections incidence; and a low prevalence, that's existing infections. Low incidence and low prevalence state for HIV.

And almost all of the cases of HIV in this state since 1982 have been acquired sexually. And the typical number of new diagnoses made a year, until very recently, was about 77, primarily among men who have sex with men. And, actually, blessedly so, there have not been 5,000 cases of

HIV in this state in the 40 years we've had HIV, which is pretty amazing.

But the sad thing is we're seeing a reversal of that now. So we are now seeing so many HIV infections due to injection drug use that that is now the primary way that new HIV infections in West Virginia are acquired which, as you can imagine from what I've told you, is a really dramatic change.

So, for example, it says on the slide in Cabell County in 2019 there were 69 new cases. And 90 percent of those new HIV cases were among people who inject drugs.

Data from 2020 are a little trickier and a little harder to confirm because that was our pandemic year. And, so, the effort of the Bureau for Public Health was very much focused on dealing with the COVID pandemic. But we do have data from 2020. It's just, you know, the degree of confirmation is still kind of pandemic.

Q. Doctor, how is HIV treated?

A. So we do have a vaccine for HIV. And we can't cure it, but based on the work that we -- that I've described much earlier, we have come a long way to manage it.

So this -- when I started in 1982, June of 1982 taking care of people with AIDS, they -- death was the uniform outcome. You, you maybe could live a year or two, but you would succumb eventually from multiple infectious and

sometimes malignant opportunistic diseases.

Since 1996 when we developed this new class of drugs called protease inhibitors -- that's kind of like -- that's what Magic Johnson got. That's the, sort of the famous turning point in the epidemic where people stopped dying. And the medicines have only gotten more refined and better since then; fewer pills fewer times a day, less side effects, less toxicity.

And now if you're a 20-year-old man and you diagnose with HIV and you take one pill once a day, it's projected that you'll live to be in your 70s. That's a far cry from watching men in their 20s and 30s die at -- I went to a lot of funerals who died in their prime of life.

So we can really manage this disease. But on the flip side, it requires determination to swallow that pill every day and you don't get a vacation. Right? You have to take that pill for a lifetime.

No matter how long your HIV viral load has been undetectable, below the ability of the assay to find it in your blood, no matter how long that's happened, you stop taking the medicine, within days to weeks your viral load goes back to where it was before.

So we have not been able to eradicate it. We're actually trying to work on that now. There's what we call a cure effort. Current research is trying to figure out how

to flush HIV from its hiding places in the body and kind of kill it off and, and sort of get a functional cure that way. But we're not there. So you do have to take medicine every day for the rest of your life.

MS. KEARSE: Gina, can you go to 013.

BY MS. KEARSE:

Q. And I believe you just talked a little bit about this. We'll focus on Cabell County. Have you provided the Court -- and really up to 2020 because I know 2021 is, is not in yet and I believe just testified 2020 may be a little under-reported.

MS. JASIEWICZ: Your Honor, if I may, we have an objection to the use of this slide which contains data from 2020 and 2021. That was not disclosed in Dr. Feinberg's report.

In addition, we only received a copy of this data at 7:00 p.m. last night. We only received a version that had the source citation at the bottom of the page around midnight last night.

So we have not had an opportunity to assess this data for concerns about reliability. And I would just note that we certainly have such concerns considering that the slide itself notes that data are preliminary and subject to change.

MS. KEARSE: And we can focus just on 2019, Your

Honor. This is just additional information that's been provided. But if we just focus on 2019 --

THE COURT: Do you object to that if she cuts it off at 2019?

MS. JASIEWICZ: If she just testifies about 2019, that's fine. I think we would still have an objection to the data from 2020 and 2021 being on the screen, but I understand if you're not able to remove that part.

THE COURT: Well, I think I'm capable of ignoring the 2020 and 2021 data.

MS. JASIEWICZ: Thank you, Your Honor.

MS. KEARSE: That's fine, Your Honor.

THE WITNESS: I only just obtained this information very recently. It wasn't available when I wrote my report. But the trend is clear, so that's fine.

And you can see that before 2018, as I said, the average number -- you don't see the state total because it goes on for, you know, 55 counties and takes up three or four pages.

But previously, as I said, there was an average number of about 77 new cases a year in the state. And the average for Cabell County was seven. And you can see that in 2018 that went to 17, a total with 13 of that 17 reporting injection drug use. And then in 2019 it jumped to 69 with 63 percent reporting injection drug use.

So that kind of -- I think the percents are something like -- for 2019 are, are approaching like 68 or 70 percent. It's a lot. And it's -- the majority of the cases in Cabell County. But as I mentioned before, it is now the majority and has been for several years the majority of all the cases in West Virginia are now associated with injection drug use.

BY MS. KEARSE:

Q. And, Doctor, have you also looked at Cabell County and -- which includes the City of Huntington in comparison to other counties as well?

A. So Cabell has the highest number. You know, we can certainly say through 2019 has the highest number of new HIV cases total and the highest proportion of new HIV cases in people who inject drugs.

Q. And is this what you're referring to? Explain to the Court what, what I've put on this slide about the outbreaks of HIV and HCV.

A. Right. So let me give you a little background for this.

So in the end of 2014, but mostly in 2015 and 2016, there was a big outbreak of HIV in Southwest Indiana in Scott County. So this provided a big shock to the public health community because this was the first time there was an HIV outbreak in a rural location. You know, HIV had been primarily really just sort of an urban disease until then.

And this caught the CDC rather unawares. And as a result of this, they did a big investigation into the -- looked at the characteristics of Scott County and then tried to look at counties cross the -- the over 3,000 counties across the United States to see if there were other counties that shared these characteristics.

And they came up with a list of 220 counties that they considered to be at high risk for hepatitis C and HIV. They were all rural counties. And more than half of them were in Central Appalachia. So by Central Appalachia I mean Southern Ohio, all of West Virginia, Eastern Kentucky, you know, north, Northeastern Tennessee. So we had more than 50 percent. And that really reflects the, you know, the injection of opioid epidemic in this region.

And when they did that, the largest number of those counties were in Kentucky, representing about 25 percent of the 220 of the total. But 13 percent of them, the second highest proportion, were in West Virginia. And if you do it by counties, we actually -- it was 51 percent. 28 of West Virginia's 55 counties were on that list.

Mingo was number one -- no, I'm wrong. McDowell was number one. Mingo was number seven. Cabell and -- most of these southern coalfield counties were on the list.

So then the state looked at that data and said, you know, we can do a more specific look at characteristics that

are important in West Virginia.

So, you know, Scott County -- there's 92 counties in Indiana. So Scott County is the poorest. It's number 92. It has very poor access to healthcare, very few physicians. You know, one in ten, you know, live in poverty. One in 20 haven't graduated from high school. So, you know, it was really an area that had a lot of -- was not a very healthy area.

And, in addition, in West Virginia we looked at another 10 characteristics that the Bureau of Public Health felt were really important to West Virginia. And, so, they did a similar analysis using the Scott County criteria and the West Virginia criteria. And they came up with this map that you can see now on the screen.

And, actually, this -- my order is different from the order up there but --

Q. We skipped a couple.

A. Cabell County turns out to be in both lists, for both the CDC list and the West Virginia list and, in fact, this tremendous overlap between the CDC evaluation and the West Virginia evaluation. And the West Virginia evaluation only added two new counties, Greenbrier and Pocahontas. Otherwise, they were concordant. So even adding in those specific characteristics to West Virginia only added two more counties.

And as you can see, this is a typical heat map. So the darker the color, the more, more intense the problem. So you can see again that the southern third of the state is at extraordinary risk for HIV and hepatitis C outbreaks.

And then I think on the right-hand side of the slide you can see the comparison to the risks for overdose that the Bureau of Public Health did. And you can see that there's, you know, tremendous concordance between the two.

And I think that is just evidence that getting HIV and hepatitis C is highly associated with injection drug use, or you could say opioid use because you can, of course, overdose from opioids when they're not injected. But then they're highly concorded with opioid use disorder.

MS. KEARSE: Your Honor, I'm getting ready to turn to a different subject matter.

THE COURT: This might be a good time to break. Let me hear --

MS. JASIEWICZ: Yes. I just wanted to ask that we proceed by question and answer as opposed to just having Dr. Feinberg offer her opinions at length.

THE COURT: Well, --

THE WITNESS: Okay.

THE COURT: I think we're doing fine the way it's going here.

Dr. Feinberg, I'm going to ask you to come back at

2:00. I apologize for the long delay but I've got another matter that I've got to take care. So if you'll come back at 2:00, we'll press on with your testimony.

THE WITNESS: Okay. Thank you very much.

THE COURT: We'll be in recess now.

MR. FARRELL: Judge, before we take a break, I understand that President Biden just signed into law a federal holiday takes effect tomorrow for Juneteenth. So the Office of Personnel Management just made some comments about federal employees.

That being said, I think that we're going to try to talk at lunch about seeing if we can squeeze in Chief Holbrook today. And I don't know what the Court's --

THE COURT: What's the new holiday?

MR. MAJESTRO: Juneteenth.

MR. HESTER: It commemorates the ending of slavery in Texas, Your Honor.

THE COURT: Well, that's a thing that's worthy of commemorating, but it's a bit surprising to learn about it one day beforehand.

All right. We'll come back at 2:00.

(Recess taken at 12:00 p.m.)

THE COURT: Good afternoon, Dr. Feinberg.

THE WITNESS: Good afternoon, Judge.

THE COURT: You may proceed when you're ready, Ms.

Kearse.

MS. KEARSE: Good afternoon, Judge. Good afternoon, Dr. Feinberg.

THE COURT: Good afternoon.

MS. KEARSE: Gina, can you go ahead and put 15 on?

BY MS. KEARSE:

Q. Doctor, before the lunch break, we had talked about HIV quite extensively and I want to now talk about HCV, which is Hepatitis C?

A. Yes.

Q. And if you can tell the Court what HCV is?

A. Sure. So, Hepatitis C is another RNA virus, a Flavivirus in the Flavivirus family and it causes a systemic infection that we call Hepatitis C because the liver is its target of choice, but it's really a systemic infection that, you know, has an impact on multiple body systems.

And Hepatitis C is primarily transmitted through contact with the blood of an infected person. So, before we had a blood test for Hepatitis C, a very common way to get it was through transfusion and, in those days, because we didn't have this organism identified, we called it Non-A, Non-B Hepatitis because it was neither Hep A nor Hep B.

Q. Dr. Feinberg, did you put a slide together to assist you in your testimony and to provide the Court information on Hepatitis C?

A. I'm sorry. I didn't hear that clearly.

Q. Did you create a slide --

A. Yes.

Q. -- in order to assist in your testimony and provide to the Court?

MS. KEARSE: Your Honor, may I publish Slide 18?

THE WITNESS: Let me -- so, this repeats some of what I just said. And then what happens, this is an interesting infection in that the majority of people who get acute Hepatitis C will go on to have chronic Hepatitis C. And it's really chronic Hepatitis C that causes the damage.

So, some lucky approximately 20 percent will clear it on their own and without any kind of intervention or treatment, but the other 75-80 percent, we don't really know the exact number, will go on to have chronic disease and the chronicity of the disease is marked in the liver by scarring and scarring is kind of the body's way of responding to lots of insult, right? You cut your skin, you have a scar.

So, you damage the liver. The liver starts laying down scar tissue. And the medical term is fibrosis. And when there is a lot of fibrosis in the liver, then you have Cirrhosis. Cirrhosis is nothing but a liver that is just balled up with scar.

And, you know, at the point of having decompensated Cirrhosis, in other words, having a lot of scar tissue and

end stage liver disease, the only way to survive that is to get a liver transplant. And chronic Hepatitis C at that stage of the game is also marked in some people by the development of cancer, of a hepatocellular carcinoma, is the formal term.

So --

Q. And I will ask you to back up. Is HCV or Hepatitis C, is that caused by intravenous or injection drug use?

A. Right. So, it's really -- so, as I said, it's contact with blood. It used to be transfusion. Now we screen the blood supply. And the primary way now in the United States and actually most of the developing world, the primary way to get Hepatitis C is from injection drug use, sharing the syringe or the other materials that are used to prepare the drugs.

Q. And can you tell the Court what is the risk of contracting HIV within the first year of using --

A. So, Hepatitis C is way more contagious than HIV and studies have shown that maybe 40 percent of people who inject drugs will acquire Hepatitis C in their first year of injection drug use and eventually the majority of people will have it.

Q. Dr. Feinberg, can you estimate how many people in the United States and then in West Virginia have Hepatitis C or HCV as a result of injection drug use?

A. So, it's not easy to have an exact number, although acute Hepatitis C is reportable, and that's because it's not very symptomatic in the acute state and a lot of disease happens. A lot of infection happens without being reported.

But it's estimated that somewhere between 3.5 and 5.2 million people have Hepatitis C. And among people who inject drugs, the prevalence has been estimated as high as 90 percent. So, up to 40 percent in the first year of injection, up to 90 percent with continued years of injection.

Q. Now, does the State of West Virginia and Cabell County, in particular, have an HCV or Hepatitis C problem?

A. So, we have an enormous problem. When you look at acute Hepatitis C rates across the United States for the last decade West Virginia has either been number one or number two. Traditionally, we trade that back and forth with Kentucky which, of course, shares geography and a lot of the same risk factors with West Virginia.

This year it happens to be -- or last year, rather, 2020 happens to be Indiana, but -- and we're number two again. So, we have an extraordinarily high rate of acute Hepatitis C.

And then if 80 percent or so of people with acute disease go on to the chronic form, which is what damages the liver, then we also have an enormous burden of chronic

Hepatitis C that can cause liver damage.

Q. And has Cabell County seen a rise over the years of Hepatitis C?

A. So, within West Virginia, when you look at it by county, Cabell County has had one of the highest acute Hep C rates inside the state. So, there are data from Cabell County Health Department, the Cabell-Huntington Health Department.

In 2016, the rate in Cabell County was 10.3 per hundred thousand and that was double the rate for the entire state, which was 5.1 per hundred thousand, and that's a pretty high rate for a state. So, Cabell County has been -- has been subject to an extraordinary Hepatitis C epidemic.

MS. KEARSE: Gina, can you go to Slide 22?

BY MS. KEARSE:

Q. Dr. Feinberg, you mentioned material from the Cabell-Huntington Health Department. Is this a graph you put together in your report that actually talks about acute Hepatitis C in Cabell County from 2013 to 2017?

A. Yes. So, this is data from CHHD, Cabell-Huntington Health Department, for that five-year period and it shows the orange or the upper line is the incidence per hundred thousand overall. And then the red line just below that mirrors the orange line is the incidence of acute Hepatitis C with -- that's been associated with injection drug use.

Q. And this is as of 2017. Do you have additional information as to the rates of Hepatitis C as we move forward into 2018 or 2019?

A. Right. It's actually gone back up again. So, you know, I can't explain the -- the drop right there for that one year. It could have been the impact of the syringe services program that started in the Fall of 2015, but I can't say for sure.

MS. KEARSE: Gina, could we have Slide 21?

BY MS. KEARSE:

Q. And similar to discussing earlier the HIV, has West Virginia and Cabell County, in particular, been disproportionately affected by HCV and Hepatitis C?

A. So, a study that the CDC did in West Virginia, Virginia, Kentucky and Tennessee from 2012 to 2016 showed a 364 percent or something like that increase in acute Hepatitis C in young people; young, in this case, being defined as 30 or younger, and three quarters of them had admitted to injection drug use.

So, Central Appalachia as a region has been extraordinarily affected by Hepatitis C as associated with injection drug use. And then, here, you see data that -- from the CDC that looks at nationally and you can see that West Virginia and Tennessee are the two states that really light up as having really high rates. So, you know, we have

continued as a state to be highly impacted by Hepatitis C.

Q. How is HCV treated?

A. So, actually, you can cure Hepatitis C now, but it's a very recent development. Probably dates back only to 2016. So, only people who have completed training in the last several years really know this.

You give them a combination of drugs, two or three. They're taken usually once a day for as little as 8 to 12 weeks, depending on the drug combination, and you can cure between 95 to 99 percent of people.

So, this is really important because, first of all, if you're cured, you can no longer give Hepatitis C to anybody else. So, it really is important to slowing the epidemic, but you also preserve your liver so you don't go on to have endstage liver disease, or need of a liver transplant, or spend a lot of your life in a hospital.

And from a public health perspective, this is really important because one of the things I didn't tell you is that the only reservoir for Hepatitis C is humans. So, like smallpox, you could actually eliminate Hepatitis C if you could cure enough people. If you could cure enough people and stop new people from getting Hepatitis C.

So, being able to cure this disease is -- you know, really is a medical miracle, as far as I'm concerned, because most of my career, you just saw people get really

sick.

MS. KEARSE: Gina, Slide 23.

BY MS. KEARSE:

Q. And, Doctor, similar to talking with the HIV has there been a comparison to overdoses in West Virginia and Cabell County, in particular -- here the site says 2014 compared to 2015 and can you explain this slide to the Court?

A. Sure. So, when we put this slide together I didn't have data concordant with the same years. I didn't have the same density data for 2015 for -- for overdoses, but I think you get a good feel even though they're a year apart.

So, again, these are heat maps. The darker the color the more intense the problem. Once again, you'll see in the southern coalfields and Cabell County on the left, you know, dark red and purple. These are the overdose rates we're looking at.

And then interposed on the bottom right is the bottom third of the state for acute Hepatitis C. And you can see how clearly they are associated.

And I think I use this slide in teaching to point out that, you know, this makes it really sort of visually evident that Hepatitis C is associated with injection -- you know, injection of opioid use, because the opioids are opioid overdoses.

Q. Doctor, can people get both HIV and HCV?

A. They can. You can be co-infected with HIV and Hepatitis C. You can be co-infected with HIV and Hepatitis B. The most common combination, because Hepatitis C is more common in this population, chronic Hepatitis C than chronic B, what happens to an individual that has both viruses is that neither infection does well. In fact, they both do worse.

So, having Hepatitis C on top of HIV worsens your immune dysfunction because Hepatitis C also affects the immune system just like HIV does and having HIV makes the progression to Cirrhosis faster. So, it is a bad thing.

And even in the era when access to curative Hepatitis C drugs was extraordinarily limited because of cost, if you had coinfection, West Virginia Medicaid would approve it because -- because the outcomes are so bad.

Q. And so, it increases your morbidity and mortality?

A. Right. It affects morbidity and mortality. And coinfection of Hepatitis C and HIV is extraordinarily common. It's most common in people who inject drugs because they're -- you know, that's -- that's the risk for acquiring both infections.

Q. Doctor, I'd like to talk about the next viral infection that was on our list and that's Hepatitis B.

A. Okay.

Q. If you can go to slide 25. And, Doctor, did you create

a couple of slides to assist you in providing testimony before the Court on what Hepatitis B is?

A. Right. So, I think some of those details are on the following slide, but Hepatitis B is a DNA virus, not an RNA virus like HIV and Hep C. It's in the Hepadnavirus family. It causes liver disease and, in fact, the damage it does to the liver is exactly the same kind of damage that Hepatitis C does which is, you know, it kills off liver cells and then they start scarring.

It is spread by contact with the blood of an infected person, as well as by some other routes. It's -- you can contract it sexually. Through contaminated food. Women can certainly give it to their newborns.

And just like Hepatitis C, there's been a rise in Hepatitis B. Studies have shown it in the same central Appalachia region, a study from the CDC. And, once again, it is highly associated with injection drug use.

MS. KEARSE: And if we can go to the next slide, Gina, Slide 27.

BY MS. KEARSE:

Q. Can you provide the Court some information about the number of people who contract HBV or Hepatitis B?

A. So, there's about a little over 2 million people, 2.2 million people in the United States with Hepatitis B. Sadly, our record as a state with Hep B is even worse than

with Hep C because, at least with Hep C, we've sometimes been number two in the United States. We have had the highest rate of Hepatitis B for over a decade, which is not good.

You can, in fact, prevent Hepatitis B with vaccination. So now, and since we have good vaccinations regulations here, primarily the people who get Hepatitis B are those who were born before 1990 -- late '91-'92 when we started vaccinating babies at birth and they would get their first shot before they left the hospital.

And the incidence of Hep B in this state is 14 times the U. S. average. And, you know, it's linked to injection drug use. It progresses to a chronic stage just like Hep C does, but it progresses to a chronic stage in a much smaller percent of cases.

Q. And do you specifically have information about Cabell County in regards to --

A. So, Cabell County, again, like Hepatitis C among West Virginia counties has a really high rate of acute Hepatitis B. And I think on that slide it says almost 17 per hundred thousand. And this is -- and it also has one of the highest -- you know, once you have a high rate of acute Hep B, right, it follows that you'll have a high right of chronic Hep B and, indeed, Cabell County has a significant number of reported cases. So, in 2016, as it says there, it's --

there were 43 such cases.

Q. Is that also associated with injection opioid use?

A. You know, there aren't data that -- there aren't -- I didn't -- I have not created a slide with a parallel set of data but really Hepatitis B has the same kind of distribution that Hepatitis C does. So, if I were to create a teaching slide like the one I showed you, it would look very much the same.

Q. And how is HBV treated?

A. Like HIV, you can't cure it. You can prevent it with vaccination, but as I said, people who were born before 1991-'92 are very vulnerable. And just like HIV, you just have to take lifelong daily medication and that you measure the viral load. Just like HIV, you measure the viral load. If you can keep the viral load below the limit of detection of the blood test then people maintain health and they don't progress to Cirrhosis and hepatocellular carcinoma and endstage liver disease and all the other, you know, sequelae of other serious chronic Hepatitis B infection.

Q. Do you have information for the Court on how -- what state has been most affected by Hepatitis B?

A. What --

Q. What state has been most affected by Hepatitis B?

A. I think I mentioned that already but, yeah, West Virginia by -- by leaps and bounds. And I think we have --

there should be a slide that has a picture of this, again, data from the CDC.

And, as I said, we've sadly been -- had the highest rate for over a decade. So, Tennessee is in second place here.

Q. And for the Court, we're showing a slide that says source CDC on the bottom there, but can you explain to the Court what is this data showing?

A. So, this is the same kind of -- you know, the heat map concept. The darker the color, the worse the problem. So, here you can see that these states that are in red, yellow and orange, with the exception of Florida, are very much centered in Central Appalachia. And then you can see the only red state is West Virginia. And, as we said, we have a rate that is 14 times the rate of the country as a whole.

MS. KEARSE: Gina, can you go to Slide 30?

BY MS. KEARSE:

Q. And did you also have information from the Cabell-Huntington Health Department that you've utilized in your report and can describe to the Court?

A. Right. So, this -- these data from CHHD, the orange line on the graph is the Cabell County acute Hepatitis B rate from 2012 to 2016. And the red line is the West Virginia rate. So, you can see the Cabell County and West Virginia rates kind of track together, but the Cabell County

rate is higher than the state is as a whole.

And then the sort of Oxblood red line at the bottom is the U. S. rate and you can see there's a very slight increase from 2012 to 2015, but you can see what a significant difference there is between the West Virginia and Cabell County rates and the U. S. as a whole.

Q. And you continue to track this type of data, as well?

A. Right. I mean, these are the data that I was given access to from the Cabell-Huntington Health Department. You know, if there -- my understanding from looking at state data is that this continues, but I don't have newer data than this from the Health Department there itself.

Q. And, Doctor, I think we went through the treatment of HBV and Hepatitis C. I'm going to -- I'm going to move to another topic now, the bacterial infectious disease that we talked about earlier and, specifically, endocarditis.

And can you tell the Court -- well, first, did you provide some slides in order to assist your testimony to provide information to the Court on endocarditis?

A. So, infective endocarditis or, just for short, endocarditis, is an infection of the lining of the heart or the endocardium. And it not only lines the heart, but it covers the valves that control the flow of the blood in and out of the heart. And when these valves get infected, they malfunction, right? They don't -- there's something bulky

on them. They don't close tightly, so that there's a leakage of blood.

And you hear that clinically, the examining doctor, you hear a murmur with your stethoscope and it's either a new murmur or, if they had pre-existing heart disease, it's a worsened murmur.

And the most common cause of infective endocarditis is various bacteria. Typically, skin bacteria, but often mouth bacteria because it's very common for people to lick the needle before they use it so then they get mouth organisms on the needle.

And what happens -- and I think I mentioned this before. You have unsterile drug prepared using unsterile equipment, perhaps with a shared syringe that has other people's germs, and you're injecting this through skin that may not be clean. And so, you're injecting infectious organisms directly into the bloodstream.

And, actually, it's amazing that everybody doesn't have endocarditis all the time because every time you inject, you're putting germs in the blood. But it actually takes root on valves that we think are sort of already a little bit damaged in some mechanical way.

Q. And I think you have a graphic there that shows.

A. Yeah. I think that comes -- comes later. So, the bacteria or, in rare cases, the fungi attached to the valve

and multiply there and do damage to the valve. Sometimes, the valve will actually perforate. In other words, the infection will eat a hole through the valve. Sometimes the valve will detach from where it's rooted into the -- into the heart itself.

And this is a picture of, you know, a diagram of what the valves look like. The try cuspid valve is on the right-hand side of the heart. And when you inject into a vein that blood goes directly to the right side of the heart. The right side is the low pressure side. It pumps to the lungs. That's where the blood cells pick up oxygen. It's pumped to the left side of the heart.

The left side of the heart is what sends oxygenated blood to the rest of the body. So, it has a much higher pressure.

And if you have the misfortune of having a hole, or a rupture or, you know, complete separation of the valve on the left side of the heart then you go into acute heart failure and, unlike older people who have chronic heart failure and it's a chronic disease and, you know, you play around with medications to control it, acute heart failure is an emergency. It's a disaster. And if you don't have cardiac surgery to replace that valve right away you will die.

Q. Doctor, did you start seeing at some period of time an

increase in endocarditis?

A. So, we started seeing an increase in endocarditis around 2005. So, I think, you know, in the time course of the -- within the opioid epidemic, if you don't need cardiac surgery then the typical treatment is six weeks of intravenous antibiotics. You typically stay in the hospital for that period of time.

But if you're in a smaller hospital you usually almost always actually get transferred to a major medical center because there's always this risk of a valve dehiscence, a medical term for separating or rupturing. And if you don't have access to cardiac surgery, then you're not going to get fixed.

And there's only a limited number of hospitals in West Virginia that can handle this that have this capacity. So, that's Huntington, Charleston and Morgantown. Those are the three cities that patients get sent to, you know, when they have endocarditis.

MS. KEARSE: Gina, if you go to 33.

BY MS. KEARSE:

Q. And can you tell us, Dr. Feinberg, about the number of people you've started seeing with endocarditis and the trends that you've seen that would include Cabell-Huntington?

A. Right. Actually, I was in Cincinnati still in 2005 and

I was the hospital infection consultant and I -- in a two-week period, I saw four people with endocarditis. And they were all people who injected drugs. And they all came from the small towns east of Cincinnati, which is Appalachian Southern Ohio.

And that's what made me know that we had a heroin problem. Cincinnati had never had a heroin problem before. This was a new thing.

And endocarditis has been an enormous problem across all of West Virginia and it has been, you know, significant in the major population centers. But there's no active surveillance for endocarditis, not at a state level or not at the CDC level. So, no one can tell you how many cases of endocarditis there are in a given time period because the data just are not collected.

But we just finished doing a study of the four referral hospitals where more than 90 percent of the cases in the state go. That was 762 cases of endocarditis in a five-year period. And that's a lot of endocarditis. And 71 -- that's a six-fold increase over the five years. I think it was 2014 through the end of 2018. And 71 percent of those cases were associated with injection drug use.

So, it's another one of these things where there is injection drug use, HIV, Hep B, Hep C and endocarditis will follow because it's a consequence of -- of drug delivery.

Q. And you talked about a study in the Charleston area, in Kanawha County?

A. Yeah. There's a -- was a study done by Mark Bates from CAMC. And they looked at an earlier time period, 2006 to 2015, and they looked at just the cases at CAMC which, at that -- from that time period was at 462 cases and that was a significant increase for them. It was more than a two-fold -- more than a doubling of the cases over that time period.

And they also looked at hospital utilization and, of course, people who had drug use associated endocarditis were sicker, younger, and had more expensive hospitalizations because they required surgery more often.

Q. And are you aware of endocarditis cases also in Cabell County even though we don't have a specific number?

A. Yeah. It's hard to come by specific data per county because it's not tracked in a surveillance kind of way like the viral diseases are, but St. Mary's and Huntington Hospital are two of those referral hospitals, so the 762 cases that we saw statewide, a significant proportion of them, but I can't tell you exactly the number were clearly seen at that -- those two hospitals and also referred from outside Cabell County to those hospitals.

Q. Okay. And, Doctor, can you -- it looks like a slide that's another one of your teaching material slides. Can

you tell the Court a little bit about the epidemiology that's part of what you teach in your class about the causes of ineffective endocarditis?

A. Right. So, typically, this is like so many things, a disease of the elderly --

MS. JASIEWICZ: Excuse me. I'm sorry. I have an objection to the slide which does not appear in Dr. Feinberg's report and I don't believe that the source of this -- it says Judith Feinberg teaching materials. I don't believe there is a specific source on Dr. Feinberg's reliance list that corresponds with this.

MS. KEARSE: This is a demonstrative, Your Honor, one of her teaching materials just to talk about endocarditis and what she's testified to, the intravenous drug use.

THE COURT: What she's testifying to was a subject in her report, wasn't it?

MS. KEARSE: This particular slide was not in her report.

THE COURT: I understand that, but this is illustrating something that was in her report?

MS. KEARSE: Yes, Your Honor.

THE COURT: Overruled. I'm going to let her go ahead.

BY MS. KEARSE:

Q. I think we just got through the slide anyway. Anything else --

A. Should I go on?

Q. Yeah. I don't know if you were finished with that slide.

A. Okay.

Q. Were you finished? So, the --

MS. KEARSE: Well, go back to that Gina. I think the point of this was is there --

A. I think we've gone over this.

Q. Okay.

A. I mean, about a third of the patients have left-sided disease. Those are the people who are at risk, who are at serious risk for heart failure and needing cardiac surgery. You know, 20 to 30 people with endocarditis will die. So it's, even with cardiac surgery, quite a serious problem.

Q. And looking from the back -- from the slides before that, is it fair to say a majority of the endocarditis cases are injection drug-related?

A. Because it's -- otherwise, how do you get bacteria into your blood? Well, if you have really bad teeth and you brush your teeth too vigorously, you can introduce bacteria from your mouth into your bloodstream that way. But the direct injection of bacteria into your bloodstream is -- I don't know how to quite say that. It's a -- I think it sort

of speaks for itself in terms of what the risk is likely to be, as opposed to people who, in some accidental way, get bacteria into their blood.

Q. Doctor, I'd like to change course now. I think we've talked about the primary viral and bacterial diseases, but there's others that we haven't talked about. Is there just a brief overview of anything that we've left out because I would like to move to prevention or harm reduction, but --

A. Say that again.

Q. Is there anything we left out that we need to talk about today? We talked about the major ones, HIV, Hep C -- Hep C, Hep B, endocarditis, HIV. Is there any other viral or bacterial infections that we've seen in West Virginia and Cabell County?

A. Right. So, endocarditis is the most serious and life threatening bacterial infection but really once the bacteria enter the bloodstream they can make a home anywhere they like. And so, there are other serious infections that are usually not quite so likely to be fatal, but they cause a lot of morbidity.

So you could have infection of a bone. Infection of a joint. You can have an abscess in a visceral organ like the liver or spleen. You can have an abscess in the brain. Now, that can be, as you could imagine, really a dangerous event because it takes up a lot of space and, you know,

turns a chunk of the brain to pus so people could have some serious neurologic problems from that.

And then, you know, the most common infection, bacterial infection that's associated with injection drug use is, of course, skin and soft tissue infections. Cellulites, which is an infection of the skin. Or an abscess of the injection site.

So, and you -- you know, these are not fatal and some -- some people are hospitalized for those things and require like surgical drainage. Some people are treated on an outpatient basis.

But because it's so common, it's actually the most expensive. If you look at costs to society, it is the most expensive injection drug-related problem. But it's -- you know, it's rarely that -- it's rarely that serious, you know, unless people ignore it for a long time and then require amputation. And even amputation is not death. So, those are the main other things.

And then, of course, as a result of transactional sex, trading sex for drugs and money, there's -- this population has a lot of sexually transmitted infections. And, again, they're treatable, but they're not fatal. And, you know, they're -- they're manageable.

Q. Doctor, did you also in your report provide opinions in regard to preventative measures in regard to the diseases

that we've discussed today from injection of drugs and opioids specifically?

A. Sure. Well, I would start by saying a very key thing is harm reduction. And harm reduction is the public health principle of minimizing harm for -- from behaviors that we do not condone, right? Nobody thinks that injecting drugs is a good idea.

And harm reduction in its broadest sense encompasses the provision of services and resources to people who use drugs and to the communities in which they live to assist them in reducing the harms of drug use. And the most, I think, well-known aspect of harm reduction is syringe exchange or syringe services programs.

I think in the 1990s and early 2000s people primarily -- this was primarily really just syringe exchange or people would call it needle exchange. You'd bring in a used syringe; they'd give you a sterile one in return.

But over time, I think it was realized that this was a great way to reach this population in terms of minimizing other health risks and, you know, offering them access to drug treatment. And that's really what the term syringe services encompasses. It's a lot of other things besides just exchange of, you know, used syringes for sterile ones.

Q. Did you provide a slide, Dr. Feinberg, that kind of goes over some of the different categories of harm reduction

that we can briefly go over?

A. Yes.

MS. KEARSE: Gina, Slide 37.

BY MS. KEARSE:

Q. And, Doctor, you just said something about treatment, so I -- I want to ask you from a public health perspective, what are the goals of harm reduction programs for the community and for the individuals who may be so diseased with infections?

A. Okay. So, you know, I think the -- clearly, the primary goal is, first of all, keeping people alive. Alive and healthy, right, because Opioid Use Disorder is a chronic relapsing brain disease and everything that you get on top of that just makes life that much more difficult to negotiate.

So, keeping people alive and healthy is the initial primary goal. And you do that through the exchange of syringes. And you do that through education about overdose, what it is, how to recognize it, how to intervene, how to give people rescue breathing. These are programs that typically distribute naloxone, which is the rescue drug that prevents fatalities from an opioid overdose.

And then there's a whole range of other services. And these are services that are important, I think, for the individual, but also for the community at large. Syringe

service programs test people. You can do these rapid on-site tests for HIV and Hepatitis C. We don't have one for Hep B. But for Hepatitis C, you have results in 15 minutes.

You can refer people that you identify as infected to specific care for those infections. You can refer them for treatment for Opioid Use Disorder.

Lots of people with the Opioid Use Disorder have other problems and -- such as mental health problems or other medical problems. So, they can be referred for that. Women can be referred, of course, for birth control and prenatal care.

More recently, in the last several years, we've been giving people fentanyl test strips as fentanyl has become a really -- a very big part of the opioid drug supply and has a very high fatality rate because it's so potent and it acts so quickly. So, we give people fentanyl test strips and we teach them how to test their drug supply for fentanyl.

So, it's all of those kinds of things that are valuable to the individual, but also have a larger value to the community. You know, if somebody has Hepatitis C and you can identify that and get them into care.

We just completed a study. Actually, the results have been submitted to the New England Journal of Medicine where we cured active injectors, active injectors of Hepatitis C

and, you know, you -- not only as I -- protect their -- the liver of those individuals, but you protect the ongoing transmission of Hepatitis C in the community. The same thing would be true for, you know, the other viral infections.

Q. And, Doctor, I want to ask you, you touched on these referrals to treatment for Opioid Use Disorder. Is that a goal of a Harm Reduction Program to have people -- to give people the ability to reach out?

A. It's a desirable outcome, I think, but like most serious life decisions, it has to be that person's motivation to do it. You can't just say, look, let's send you to drug treatment. It's great, great for you. If they're not ready, that's just not going to work. So, I would say that's a desirable outcome.

I think the main goal, in addition to keeping people alive and healthy, is to develop trust because what happens, and this is certainly my experience, as well, people will eventually show up because you've treated them with respect, which is hard to come by because drug user is so stigmatized. You've treated them like they are people deserving of some assistance and they'll come back to you and they'll say I can't do this for another day. Help me. And then, you know, you make those connections for them.

In our syringe services program in Cincinnati, we not

only had all the phone numbers and we had Memoranda of Understanding with all the treatment centers in the area, but we would actually -- our staff would actually drive people to those intake appointments. So, when they trust you, they'll do that.

Q. In fact, did you put a slide together on that, on how a Harm Reduction Program can work in having participants actually seek treatment?

A. So, I think sometimes syringe services programs sort of get a bad wrap because I think a lot of times the public perception of these programs is that they somehow enable drug use.

You know, that's not the case. Addiction means you have obsessive thoughts and you are driven to behave in a certain way. It's not choice. If you don't have clean syringes, you're going to use whatever you find in the street. And there are multiple, multiple studies since the 90s that support the utility of syringe services programs.

So, these studies have shown us that people are five times as likely to enter drug treatment. They're three times as likely to reduce the frequency of injection even if they don't enter treatment. They've been shown to decrease the transmission of HIV, and Hepatitis C, and Hepatitis B which, as we've talked about, are pretty terrible things to have.

They decrease the presence of syringes in the community that pose a risk for children and first responders and, you know, people who -- sanitation workers. It's extraordinarily cost effective, extraordinarily cost effective. You could run a syringe services program for a year on less money than one hospitalization for HIV or serious Hep C.

Q. Did you put a slide together on that, too, that the costs avoided with a Harm Reduction Program is actually of benefit?

A. Right. So, you know, the estimate of a $450,000.00 lifetime cost of treating one person with HIV, actually, the numbers are closer to $500,000 now, but that's a study that was published seven years ago and we are dealing with extraordinary costs for hospitalizations for drug use associated infections. And, you know, if you can avoid this, it's fantastic.

I ran a syringe services program for something like $60,000.00. It's -- it's -- you know, if you think about not just the human cost of preventing fatal overdoses and preventing the spread of these infections but if you just think in terms of money, you know, then I don't think you can find a better deal.

Q. And with the goal of getting them to treatment or medically assisted treatment and other types of programs?

A. Yeah.

MS. KEARSE: Gina, Slide 41.

And I think we're about to wrap things up.

BY MS. KEARSE:

Q. So, Dr. Feinberg, do you also have some specific information in the documents that you reviewed about some of the individuals served in Cabell County in regards to their reduction programs and harm reductions?

A. Right. So, this is data from the Cabell-Huntington Health Department. This was the first -- you know, if you look through 2016, so that syringe service program started in, I think, September of 2015. So, you're looking at a little more than a year of data. And, at that point, they had served almost 2,000 individuals with -- clearly, people were coming back because they had almost 8,000 client encounters, so people were coming back again and again.

It was a little more men than women. But a significant portion of people were homeless. 20 percent homeless. And, of course, you know, lack of insurance was extremely common in a third of these individuals.

So, this program was providing both -- meeting individual needs, but providing a real service, a real public health service, to the City of Huntington and the County by, you know, being able to -- you know, being able to meet with people and, you know, help avoid these

infections, help avoid these complications.

Q. Is it fair to say that Cabell County under the direction of Dr. Kilkenny was pioneering on some of these ways in order to come to people with injection drug addiction?

A. This was a -- this was a model program by all -- you know, sort of the public health criteria, by the CDC's criteria, for a syringe service program. The -- some aspects of the program were altered in April of -- so, it's 2018 following the closure of the syringe services program in Charleston in the prior month.

And I think there was, you know, tremendous concern that the politics that drove that closure would -- you know, would be a problem in Huntington and Cabell County, too. So, it's still an excellent program. It has some limitations to it now that it didn't have originally.

Q. And people with OUD, are there barriers and stigma still associated that the communities like Cabell County are still working through in order to reach out to more people?

A. Yeah. I mean, I think -- I don't know. I'm not sure I heard that clearly. Would you please re-state that?

Q. Could you tell the Court what types of things like communities like Cabell County doing in order to deal with stigma or other barriers to treatment?

A. So, that's a great question and not easy to answer

because, you know, stigma lives in the individual heart and mind of a lot of people and it has been hard to -- it's hard to convince people sometimes otherwise, but there has been a tremendous outreach effort, especially after the HIV outbreak in Cabell County. There was a real outreach effort to bring people in, bring in new clients who had not been part of it before, screen people for HIV. The stigma part is just --

Q. So, there's still work to be done?

A. Still, I think, remains a significant problem not really there but everywhere in the state. Maybe everywhere in the country. So -- but, you know, there have -- there have been specific efforts made to enhance the individual and public health aspects of some of those services.

Q. And the more we focus on it in a public health aspect, the more people will actually learn about treatment and what people can -- can get better from OUD; is that fair?

A. You know what? It's so hard to hear through this thing.

Q. Okay. All right. I was going to say, Dr. Feinberg, I'll just move on from that because I want to ask a couple extra more questions with that and finish up here this afternoon. So, my last question about the stigma and barrier, is there still work being done though to educate communities and members of communities the benefits of

treatment for people with Opioid Use Disorder?

A. I would say that there are still efforts being made kind of piecemeal. I think we need a much more significant, concerted, coordinated effort.

I think that, you know, Madison Avenue can sell almost anything. I think we should think about selling people on the idea that Substance Use Disorder and Opioid Use Disorder, in particular, are chronic relapsing brain diseases. That these are people who need medical care. You know, and they're not disposable. These are not people -- oh -- we throw to a corner and just say, well, too bad.

Now, these are primarily people in their 20s and 30s, right? The majority of the people who are suffering from these infections related to injection drug use are between the age of 20 and 40. They're in the prime of life. They often have families and young children.

You know, we need to make a much stronger and better effort to deal with the stigma because it's the stigma that keeps people from getting medical care. It keeps them from getting Opioid Use Disorder care. You know, it's just a major barrier.

In our own work, in our own research in the southern coalfields, stigma and transportation, lack of access to transportation, were the two biggest obstacles for any kind of care, whether it was infectious diseases or Substance Use

Disorder. You know, people just can't get from A to B to -- to access care.

And the stigma and -- stops them because, sadly, healthcare providers and healthcare systems are often no less stigmatizing than the general public and people are afraid. They're afraid of going to see a doctor. They're afraid of going to an emergency department where they will just be treated very badly.

And I've witnessed this. I've seen this. I've heard this. I've heard people say terrible things to people, things that you wouldn't -- you can't imagine that a polite person could conceivably say to another human being.

Q. Well, Doctor, it sounds like we've got some work to do and to deal the stigma. I want to wrap up with a couple of just questions from your work here and what you've provided the Court with, the information today.

And, Dr. Feinberg, do you have an opinion as to whether or not there's a public health crisis in Cabell County as it relates to bloodborne diseases resulting from opioid use?

A. There's no question in my mind that these two things are related.

Q. And, Doctor, does that include the various diseases that we asked today in providing information to the Court?

A. Yes.

MS. KEARSE: Your Honor, no further questions.

THE COURT: All right. You may cross examine.

MS. KEARSE: Thank you, Doctor.

THE WITNESS: Thank you.

CROSS EXAMINATION

BY MS. JASIEWICZ:

Q. Good afternoon, Dr. Feinberg.

A. Hi.

Q. My name is Isia Jasiewicz. I represent Cardinal Health. We have met on Zoom, but it is very nice to finally meet you in person.

A. As I remember, it was hard to hear you on Zoom, too, so I hope we'll do better today.

Q. Yes. I will try to do better today.

A. I know. I have new hearing aid batteries and everything, but I think the plexiglass is, I don't know, part of the problem. It's hard.

Q. Well, I will say, this microphone is certainly better than the cell phone that I was using for audio and Zoom.

A. Great.

Q. So, hopefully, you'll be able to hear me. If you can't hear me, just ask me to repeat.

A. Okay.

Q. Dr. Feinberg, your opinions in your report are confined to the infectious consequences of injection drug use, correct?

A. Yes, because that is my expertise.

Q. And in your testimony today, you have sometimes been using the term "injection opioid use", but in your report, you use the term "injection drug use", right?

A. You know, I don't recall the extent to which I used those terms interchangeably or not, but I had in mind certainly opioid use when I wrote that report.

Q. Now, you testified on direct that there is a risk of certain infectious diseases that arises as a consequence of the means of drug delivery, meaning when someone injects drugs that are not sterile, using unsterile equipment, shared needles through unclean skin, correct?

A. Correct.

Q. And that risk associated with the means of drug delivery is the same regardless of which drug is being injected, correct?

A. So, I would say that is probably true, although all of the data we have, and it's a pretty vast amount of data, is in the context of injecting opioids. I think, if you inject other drugs, you have the same behaviors. There's probably an association there, as well, but the materials that I reviewed and my own experience, you know, is really very much focused on the use of opioids in that context.

Q. And, Dr. Feinberg, you didn't mention any of the defendants who are in the courtroom today in your expert

report, did you?

A. No, I did not.

Q. And, in fact, you don't use the word "distributors" anywhere in your report?

A. My expertise was about the connection of injection opioid use and infectious diseases, not about who distributed these drugs. My -- my expertise is about the end result of that distribution but --

Q. Now, when we're talking about injection drug use, when you use that term, you are referring to non-medical use of drugs, correct?

A. Typically because it's very limited circumstances in which a prescription would be written to deliver an opioid by injection to -- directly to a patient, right? We do give opioids by injection in the emergency room and -- or intravenously and in the hospital, but that's not how you would write a prescription. I certainly have never written a prescription for an opioid to be anything other than swallowed or as a fentanyl patch applied to the skin.

Q. So, to be clear when you use the term "injection drug use", you are referring to non-medical use, correct?

A. As I just said, yes. You know, this is not a -- this is not something you do as part of typical medical practice.

Q. And when we talk about non-medical drug use, that can mean either use of an illicit drug or non-medical misuse of

a legal drug, correct?

A. Right. Right. You know, a drug can be prescribed to somebody and then the acute pain is gone, but they have become dependent on the drug and they can continue to use it. So, even if the prescription was written to them, at this point, it's non-medical use.

Q. Now, when talking about injection drug use in that first bucket, illicit drugs, that might include heroin, for instance?

A. Illicit drugs can be prescription pills that people get on the street or take from their grandmother's medicine cabinet. It doesn't mean --

Q. Yes, but I am asking when you're talking about --

MS. KEARSE: Your Honor, objection.

BY MS. JASIEWICZ: -- injection drug use --

MS. KEARSE: Objection. I think you just cut her off in her answer.

Your Honor, I would ask that she be able to complete her answer.

BY MS. JASIEWICZ:

Q. I apologize. I certainly didn't mean to cut you off. I just thought we might be talking past each other because I am asking when you're talking about injection drug use --

A. Right.

Q. And we've already established that means non-medical

use, could be illicit drugs, could also be non-medical use of legal drugs. And in that first bucket, illicit drugs, that includes heroin, for instance, correct?

A. I think so, if I'm following you correctly, but you can also break up a prescription pill and inject it.

Q. Okay. You anticipated some of my next questions, but before we get there, non-medical use, meaning injection drug use, could also include use of illicit fentanyl, correct?

A. I'm sorry. Say that again.

Q. Could also include illicit fentanyl, correct?

A. Right. It can include any opioid that is not prescribed to you and is taken in a way that is not prescribed. So, if your prescription says by mouth and you inject it, that's not -- that's illicit use. At least in my mind, that's illicit use.

Q. And injection drug use can also refer to injection of methamphetamine, correct?

A. It can -- it can refer to the injection of anything.

Q. Okay. Now, moving on to the questions that you anticipated, non-medical use of drugs might also include misuse of legal drugs. So, for example, a person might have a valid prescription for an opioid that's supposed to be swallowed and, instead, they crush it or they otherwise make it soluble and they inject it, right?

A. Yes.

Q. But that would be misuse of a prescribed drug, correct?
A. Yeah. That's certainly one way to describe it.
Q. And you alluded to this before, but to be clear, there are also prescription drugs that can be injected by medical professionals in an appropriate medical setting, right?
A. Correct.
Q. But in your experience, no one refers to the medical use of those drugs as injection drug use, correct?
A. Correct because that is -- that term has a very specific connotation. So, I, myself, in the Emergency Department have injected into an intravenous line morphine for people who are having heart attacks, acute myocardial infarctions. That is appropriate medical care.
Q. And you're not aware of any prescription opioids indicated for self-injection, meaning that the appropriate medical use is for someone to inject themselves, as opposed to sitting in a doctor's office and a nurse or a doctor injects them?
A. If that exists, I am not aware of it.
Q. Dr. Feinberg, you also talk in your report and in your testimony today using the term "persons who inject drugs" or "people who inject drugs" and when you refer to persons who inject drugs, just like with IDU, you're referring to persons who inject drugs for non-medical use, correct?
A. Yes.

Q. So, again, that might be someone who is injecting illicit drugs like heroin or fentanyl or methamphetamines, correct?

A. Yes.

Q. And it might also be someone who has a prescription for a drug indicated for oral administration and they wind up crushing it, solu-izing it and injecting it, right?

A. Correct.

Q. And that would be misuse or abuse of that drug, correct?

A. Yes.

Q. So, when you refer to persons who inject drugs that term also does not include persons who are receiving prescription opioids by injection for medical use as administered by an appropriately licensed healthcare professional, correct?

A. Correct.

Q. So, like the term "injection drug use", "persons who inject drugs" or "people who inject drugs" is always used in the context of non-medical usage, correct?

A. Yes.

Q. So, am I understanding correctly that none of your opinions that you are offering today concern medical use of prescription drugs as indicated with a valid prescription, correct?

A. Correct.

Q. Dr. Feinberg, I believe you testified on direct that you have been practicing as an infectious disease doctor for approximately 40 years; is that right?

A. Correct.

Q. And during those approximately 40 years you observed prescribing practices and attitudes for prescribing opioids change over time, correct?

A. I didn't hear that clearly.

Q. I'm sorry. During your 40 years in medical practice you have observed prescribing practices and attitudes for prescribing opioids change over time?

A. Yes.

MS. KEARSE: Your Honor, I just have an objection to beyond the scope.

MS. JASIEWICZ: Your Honor, I have just a few very brief questions.

THE COURT: I'm going to allow it. It's cross examination. Go ahead.

MS. JASIEWICZ: Thank you, Your Honor.

THE COURT: This is certainly a matter that's been at issue in this case over and over. So, I'll let you explore it.

BY MS. JASIEWICZ:

Q. And you observed that the medical community made a

tremendous push in the 90s and the early 2000s to treat pain with opioids because there was an emphasis at the time on the undertreatment of pain, correct?

A. I'm not sure I would say that that was the medical profession that moved in that direction, but I think -- I would not say that.

Q. Well, you are familiar, are you not, with a concept of pain as the fifth vital sign?

A. I am.

Q. And you observed that concept being promoted by institutions such as JCAHO, which is the Joint Commission on Hospital Accreditation, correct?

A. Yes.

Q. And, in your experience, once medical bodies said we will say that pain is the fifth vital sign and we will assess pain at every patient encounter, that's the way it was whether individual doctors thought it was a good idea or not, right?

A. I think if you were practicing medicine in -- if you didn't -- weren't in your own private practice where you could establish your own policies and norms, but if you were working for a hospital, say, or a large organization that had adopted these new ways of thinking about opioid medications, or narcotics, we used to call them, then I think you would have felt pressure to abide by those new

regulations or new recommendations.

However, for example, in my clinic, those questions were asked by the medical assistant as the patient came in and took their other four vital signs and asked them if they needed any refills.

So, that's what I'm saying. I don't think this was something that I would say was adopted widely by the medical community. Certainly, I did not ask every patient whether they had pain or not because people tell you when they have pain.

Q. Dr. Feinberg, do you recall giving a deposition in this case on September 2nd, 2020?

A. I don't remember all the details, but I know we had one.

Q. And you were under oath during that deposition, correct?

A. Yes.

Q. And you testified truthfully during your deposition, correct?

A. And I testified --

Q. You testified truthfully during your deposition?

A. Yes. I hope so.

MS. JASIEWICZ: Mr. Huynh, if we could please put up the deposition on Page 111, Line 14. And it goes on to the next page, also Line 14.

BY MS. JASIEWICZ:

Q. And the question was, "Would you agree with me that the medical -- would you agree with me that the medical community also made a push to treat pain with opioids?" And you answered, "I think when JCAHO says" --

MS. KEARSE: Objection. I'm not sure this is the same question and proper impeachment. I think --

THE COURT: Well, I think it's close enough and I'm going to allow it. Go ahead.

BY MS. JASIEWICZ:

Q. The answer is, "I think when JCAHO says that in order to remain a certified hospital that you have to do this, I don't think there is an argument with that, frankly. I am not a hospital -- I'm not a hospital administrator so I don't -- didn't sit in any of these conversations, but I would imagine if you want to retain your status as a certified hospital" --

THE COURT: Well, that's no inconsistent with what she testified to.

MS. JASIEWICZ: I'm sorry. If we could pull up the rest of the answer on Page 112 and keep going.

BY MS. JASIEWICZ:

Q. "So, you do not say to JCAHO, you know, that's ridiculous, we've never done that before, we see no reason to do that now, we're not going to do it, I don't think that

is a realistic response."

And then you go on to say at the end there, which is the question that I asked you today, you said, "I think the fact that once those bodies said we will treat that pain as the fifth vital sign and we will assess pain at every patient encounter, that's the way it was, whether doctors thought it was a good idea or not." Correct?

A. So, I don't think that at all is different from what I just told you today.

THE COURT: I don't either. I don't think that's inconsistent at all with what she testified.

MS. JASIEWICZ: Okay. We can move on.

THE WITNESS: Okay. I'm confused, but --

BY MS. JASIEWICZ:

Q. Moving on, Dr. Feinberg, do you recall writing a statement of personal opinion about the opioid epidemic in the journal Nature published in September of 2019?

A. That what was published in September of 2019.

Q. Do you recall writing a statement of personal opinion about the opioid epidemic that was published in Nature in 2019?

A. Oh, yes, I do.

Q. And I'd like to discuss that article which has been marked as DEF-WV 2608 and I would also like to publish it on the screen.

MS. JASIEWICZ: And, Your Honor, I'm not intending to move this into evidence, just to use it as a basis to cross examine Dr. Feinberg.

Your Honor, may I approach?

THE COURT: Yes.

MS. JASIEWICZ: And, Mr. Huynh, could we please pull up Slide 1? It might be a little easier to read.

BY MS. JASIEWICZ:

Q. So, Dr. Feinberg, if you could turn your attention here, this is the Nature article published in September 2019 and the title is Tackle the Epidemic, Not the Opioids. Is this the article that we have been discussing?

A. Yes.

Q. And moving on to Slide 2, if you could turn your attention to the top above your picture next to world view, it says, A Personal Take on Events. Do you see that?

A. Yes. It's an opinion piece.

Q. So, this is your opinion based on your experience, personal observations, and research, including in West Virginia, correct?

A. Yes.

Q. And I'd like to take a look at some of the specific statements in this article together with you.

A. Okay.

Q. So, first, I'd like to call your attention to the third

paragraph which we can put up as Slide 3. And here you say, "Historically, substance misuse has come in waves, with a new drug supplanting the previous one: The heroin chic of the 1990s followed the crack babies of the 1980s. By the time federal programs target a specific drug, the issue is being attacked where it was, not where it is. Funding should be targeted to substance misuse, not to the drug du jour."

Was that your opinion published in Nature?

A. Yes, but it's more nuance than ending at that -- at that -- the end of that sentence.

Q. Sure. Well, let's -- let's keep going here. So --

MS. KEARSE: Your Honor, I don't think -- the doctor was not finished answering her question.

THE COURT: Well, I thought she was. Were you finished with your answer, Dr. Feinberg?

THE WITNESS: Well, you know, I would like to explain the nuance, but I don't know where you --

THE COURT: Well, you have the right to explain your answer.

THE WITNESS: Okay. Well, okay. Let me -- let me try to explain this.

At multiple points in this opinion piece I talk about the flood of prescription opioids that set off the current epidemic. Unlike those prior waves that sort of came and

went pretty briefly, we have really seen this problem start in around the turn of the century and here we are 21 years later and we're still in the thick of it.

So, this is not -- this has been a pretty persistent problem. And while there is -- a pretty persistent problem that really started with opioids and is still primarily driven by opioids.

So, I'm sure Court has already heard from experts in this area about overdose statistics both in the U. S. and in West Virginia and we luckily have a Medical Examiner here who does an extraordinary job of chasing down not only what drugs are found in a person's body, but what concentration they're found.

And I think those data show that even with the advent of some -- or the -- because methamphetamine and cocaine are not new. They're -- but even with the newfound maybe popularity of stimulant drugs, death due to drugs, overdose, is still overwhelmingly due to opioids.

So, yes, we have a problem, but it's a little more complicated, and that's what I was responding to. Actually, I was in part responding to my frustration because when Congress gives money that comes to the State from SAMHSA, say, the Substance Abuse and Mental Health Administration, which is how most of the money for the drug epidemic comes to us in block grants, when that money says opioid, if you

have a patient who is also not only injecting fentanyl, but also injecting methamphetamine, you can't use that money for the methamphetamine part. It's narrow.

And I think that is part of the problem of the government in these kinds of situations, is typically reactive and, you know, by the time the feds gave money for combating the opioid epidemic, we've been in the thick of it for a decade. So, you know, it's a very reactive system.

So, I had some frustration that we were dealing with people who had polysubstance use and, yet, we couldn't address the polysubstance part because it wasn't only opioids, but opioids were and remain the primary problem. They're the primary cause of death and, you know, continued injection of opioids is -- I think I showed you the overdose death rate and the acute Hepatitis C rate are practically overlapped in the southern third of the state. There is a clear relationship.

So, that's what I'm saying about this is rather nuanced and I think if you think of it only in terms of -- if you don't think of it in that way, and I think there's plenty of statements in the rest of the page that address those -- address those issues, I think it's not a fair interpretation of what I was trying to say.

Q. Well, so let's keep going here and we'll talk about some more of your statements from this article. So, I would

like to jump ahead to the fifth paragraph here and that's on Slide 4 and it starts with, "By the time Congress". So, this relates to something that you just testified to, Dr. Feinberg.

And you wrote here that, "By the time Congress moved to address the opioid epidemic, the pattern of drug use had started to shift. Once those using multiple drugs combined opioids with alcohol and other drugs, such as antianxiety agents that work on the central nervous system.

Where I work in central Appalachia, western Virginia, southern Ohio, eastern Kentucky and northeastern Tennessee, opioids are being rapidly supplanted or exacerbated by cheap, readily available, high potency methamphetamine. When opioids are used, they are being increasingly combined with stimulants such as cocaine which, like methamphetamine, is thought to help counteract the depressant effect of opioids."

Did I read that correctly?

A. You read that correctly. I would say that I probably misspoke when I used the word "supplanted". I think more the reality is exacerbated. And I think, you know, since I wrote this and it got published in September, which meant I wrote it months and months before that, we have a lot more evidence, especially with the use of fentanyl test strips and the ongoing overdose death rate from polysubstance use

that includes fentanyl.

The other thing I think we've learned is that fentanyl is so -- so, I think part of it is -- it's a complex issue. Part of it is the drug supply, right? The drug that is being sold on the street is very often, if not almost always now -- I don't know if the right word is adulterated, but fentanyl is in almost everything.

And, in fact, there have been reports of deaths from people who are purely -- this came from Cleveland. One case, three or four gentlemen died of overdose who were cocaine users and did not know that their drug was contaminated with, or cut with, or adulterated with Fentanyl and since they had no -- what's the word -- they were not accustomed, their bodies -- their metabolism was not accustomed to dealing with opioids, they all died of a fentanyl overdose.

So, I think we're learning more and more over time, you know, what is going on. So, part of it is the drug supply itself. Part of it is that fentanyl has so much -- is so -- to such a great extent ubiquitous now and it's extremely sedating. It's far more sedating than heroin.

And that some people will tell you that they use stimulants. I've heard mostly about methamphetamine rather than cocaine, but some people will say they use methamphetamine so that they can wake up again and function.

So, I've had people with Opioid Use Disorder tell me that, you know, they'll do some methamphetamine so they can get the kids to school.

So, it's -- it's -- again, it's a very complex -- it's a very complex situation and that's -- you know, that's what I said at the bottom here where it's counteractive depressant effect, you know, of the opioids.

But I really was not trying to say -- I was not trying to say or imply that our opioid use epidemic is completely now a methamphetamine epidemic. That is not accurate because, as I said before, most people are still dying in 2020 and 2021 of opioids, not of methamphetamine.

Q. Thank you, Dr. Feinberg.

MS. JASIEWICZ: I'd move to strike the last portion of that answer as non-responsive to my question which occurred a couple of minutes ago, but I believe my question was just whether I read the paragraph correctly.

THE WITNESS: You read it correctly, but I -- I understood that the judge permitted me to say what I meant.

THE COURT: Yes, and I -- I'm going to deny the motion to strike. I think it was -- I think it was responsive to your question.

Go ahead, please.

MS. JASIEWICZ: Thank you, Your Honor.

BY MS. JASIEWICZ:

Q. Moving on to the next paragraph here, starting with federal grants, if we can move on to Slide 5, it says here, "Federal grants come tagged for combating opioids and cannot be repurposed to deal with the rising incidence of methamphetamine misuse. The narrow focus on opioids means we cannot keep up with the drug du jour cycle. We will just keep playing Whack-a-Mole."

Did I read that correctly?

A. You read that correctly. And I would say exactly what I said before, that that's what -- that's the context in which I meant this.

And, you know, it is frustrating if you are -- if your personal and professional commitment is to dealing with a significant health problem and then a regulation tells you you can't look at it in a -- the broader way that you would like to, you know, that is -- that's frustrating.

Q. And so going back to Slide 1 for a moment, that is why you say here that, "Unless addiction turns to what leads to addiction" -- sorry. "Unless attention turns to what leads to addiction and overdose, treatment will always be out of date," correct?

A. Correct. So, that's the conclusion from the -- toward the bottom of this opinion piece and I think what I am trying to say there is that there is a tendency of our government to focus narrowly on what maybe appears to be the

piece that they can most kind of efficiently and least expensively fix.

And, yet, not just West Virginia, but eastern Kentucky, northeastern Tennessee, southern Ohio, southwestern Pennsylvania, we have a vast part of this country, right, more than 50 percent of the 220 counties at risk of an HIV and Hep C outbreak are struggling and nobody asks -- and this was my point. Nobody asks why are so many people seeking oblivion?

And it is still primarily opioids and now the overlay of some methamphetamine and some cocaine, but why are so many people in the position of having developed Opioid Use Disorder, and why don't we look at that? And that's what I'm trying to say.

So, you know, so I have federal money and I -- I look at whether people use fentanyl test strips to get an extra measure of safety so they never use without naloxone on board, but how did they get there? How did they get to that point? And that's what I'm trying to point out, that there's a reality underneath all of this and I don't propose to know what it is, but I think it's a significant social question and social problem.

Q. And so, just to wrap up with this article, Dr. Feinberg, if we could jump to Slide 9, and the last paragraph here, and you reference that this is something

that you discussed towards the end of this article.

You write, "Without an effort to rebuild the social and economic fabric of rural communities, addiction will persist. That's where the real problem lies and yet there are no serious attempts to address it. Our current approach to drug misuse means that we will always be playing catchup and leaving vulnerable people behind."

Did I read that correctly?

A. You read that correctly. Again, central Appalachia, which is really the belly of the beast here, is a very vulnerable and very disadvantaged part of America. And maybe there's a connection in some way with these things.

But I think that it behooves us to think about why so many people sought those prescriptions and then, when those prescriptions were harder to come by and they were already drug dependent on opioids, you know, why they went on to use street drugs. It's kind of scary to buy drugs on the street, don't you think? But they were already dependent. They already had Opioid Use Disorder.

So, there's a lot of people with Opioid Use Disorder. And that's really what I was trying to point to. I think -- I think we, as a society, need to think about that. And how are we going to help these individuals, in addition to getting them into recovery, curing their Hep C, preventing HIV? You know, how are we going to address how they got

there to begin with?

And I think when prescription drugs that offer oblivion are readily available, I think that was a way out for a lot of people in our interviews. That seems to be the -- what a lot of people in these southern counties say. This was -- misuse of prescriptions was a way -- it was a way out.

MS. JASIEWICZ: Thank you, Dr. Feinberg.

Your Honor, may I have a moment to confer?

THE COURT: Yes.

(Pause)

MS. JASIEWICZ: Thank you, Dr. Feinberg. I have no further questions.

THE WITNESS: Oh, okay. Thank you.

THE COURT: We're going to -- do you have some questions?

MS. WU: I have two questions.

THE COURT: Well, let's take a break. It's 2:30. You can stand up and move around during the break, Dr. Feinberg, if you wish.

THE WITNESS: Sounds good.

(Recess taken)

(Proceedings resumed at 3:39 p.m. as follows:)

THE COURT: The clerk has informed us that the courthouse will be open tomorrow.

So, Ms. Wu, you may cross-examine.

MS. WU: Thank you, Your Honor.

CROSS EXAMINATION

BY MS. WU:

Q. Doctor Feinberg, my name is Laura Wu and I represent McKesson in this case. I have just a few questions for you.

In your testimony you mentioned your success with a syringe exchange program that you ran in Ohio; correct?

A. Yes.

Q. And you mentioned that the program had a budget of $60,000 per year; correct?

A. That was -- yes, that was essentially what we started with for a foundation grant and a contract from the state.

Q. How many individuals were you able to serve each year in that program?

A. Wow, let me think about that. It's been a while. I think in the first year of operation we served -- we had more than one location. We had two. We eventually extended to three. And I think we served maybe 14- or 1,500 people. That was a long time ago.

Q. Thank you, Doctor. I didn't mean it to be a memory test. We appreciate your recollection.

I just have one other -- two other questions. You mentioned fentanyl test strips. Do you recall that?

A. Yes.

Q. Do you know if fentanyl test strips are offered in Cabell County?

A. I, I actually don't know the answer to that. All of the conversations that I've had with Dr. Kilkenny and all of the material that I read, which pretty much ends in 2017, because there's always a lag and, you know, I reported this a while back, I don't recall that they did.

There are a number of syringe service programs in the state that do do this. It is a relatively more recent adjunct to syringe services. I honestly don't know the answer to whether Cabell County offers that. I know they offer a lot of services, but I, I'm not sure about that.

Q. Thank you, Doctor. I have no further questions. And thank you for being here today.

A. Thank you.

MS. KEARSE: Your Honor, I have no further questions.

THE COURT: You have no redirect?

MS. KEARSE: No, Your Honor.

THE COURT: Dr. Feinberg, I can excuse you now. I want to thank you very much for being here and helping us out and you're free to go.

THE WITNESS: Thank you, Judge. I appreciate the opportunity very much. Thank you.

THE COURT: And the clerk just -- the limb the

clerk put me out on when I made my last statement has now been sawed off.

(Laughter)

THE COURT: And the message now is they don't know whether the President will sign the bill today. And if he does, they don't know whether it will immediately take effect. And we're completely in the dark, and apparently the courthouse may be closed tomorrow.

In the old days, I could get away with saying we're going to work on Saturday and we're going to go full speed ahead. I can't do that anymore. They won't let me do that.

So if the courthouse is closed tomorrow, we'll -- I guess we'll be out of commission. So we'll just have to wait and see. But I'm going to assume we're going to go ahead tomorrow.

MR. FARRELL: Judge, on behalf of the plaintiffs, we may be able to solve that. We have one last witness designated for this week who is here, got here early.

THE COURT: Well, let's go.

MR. FARRELL: Yes, sir.

THE COURT: Welcome back.

MS. LEYIMU: Good afternoon, Your Honor.

Your Honor, at this time plaintiffs call Skip Holbrook to the stand.

Temitoe Leyimu for the plaintiffs.

THE CLERK: Please state your name.

THE WITNESS: William Howard Holbrook, Jr.

THE CLERK: Please raise your right hand.

WILLIAM HOWARD HOLBROOK, JR., PLAINTIFFS' WITNESS, SWORN

THE CLERK: You can be seated. Thank you.

DIRECT EXAMINATION

BY MS. LEYIMU:

Q. Good afternoon, Chief Holbrook. Would you please state your full name for the record?

A. William Howard Holbrook, Jr.

Q. And where do you currently live?

A. Columbia, South Carolina.

Q. Where are you originally from?

A. Huntington, West Virginia.

Q. Did you grow up in Huntington? Did you grow up in Huntington?

A. I did.

Q. Could you tell the Court about what it was like to grow up in Huntington, West Virginia?

A. Wonderful. I had lovely parents, wonderful friends, just a community of -- blue collar community where people cared about each other. Neighbors were neighbors. They were nosy neighbors and they looked out for one another and it was just a wonderful place to grow up.

Q. And how long did you live in Huntington?

A. Until I graduated from college.

Q. And where did you go to college?

A. Marshall University.

Q. And did you obtain your degree at Marshall University?

A. I did.

Q. What did you get your degree in?

A. Criminal justice.

Q. Did you always have an inkling you wanted to be a police officer?

A. I think I did, yes, ma'am.

Q. And when did you graduate from Marshall University?

A. In 1987.

Q. After graduating from Marshall, did you go on to obtain higher education?

A. I did a few years later, yes, ma'am.

Q. And what did you obtain?

A. A Master's in business administration from Pfeiffer University.

Q. Chief Holbrook, why did you decide to become a police officer?

A. Well, some would say it's the greatest show on earth; a lot of challenges, excitement but, most importantly, an opportunity to serve my fellow man. And I always felt like I had a heart for service and just -- I think it's the most noblest profession that there has ever been. And that's

what drew me to it.

Q. So I presume you graduated from the police academy; is that right?

A. Yes.

Q. And when was that?

A. In the summer of 1987.

Q. And in the course of your education and training, did you receive any advance training as it relates to drugs?

A. I did.

Q. Could you tell the Court a little bit about that?

A. Well, of course, in, in the Charlotte Police Academy, which is where I started my career, they teach introductory level of drug recognition and drug investigation.

And then I advanced rather quickly into narcotics investigations. I was an investigator and then I went on to the State Police. And throughout my assignments, I had opportunities to attend trainings and seminars and, of course, in the field training with seasoned officers and investigators.

And, so, some was in the field and some would have been technical training in the classroom and, and advanced courses by the Drug Enforcement Administration, the FBI, and ATF specific to narcotics and firearms investigations.

Q. And what was your first job in law enforcement?

A. I was a patrol officer with the Charlotte Police

Department.

Q. And how long did you work at the Charlotte Police Department?

A. Five years.

Q. Is that Charlotte, North Carolina?

A. Yes, ma'am.

Q. And at some point, did you make a decision to come back to Huntington?

A. I did.

Q. Could you tell the Court about that?

A. I had been a police officer for about 16 years and had moved a number of times. And my three children were all born in North Carolina and I -- as I spoke to just a minute ago, just the experience I had growing up and the impact my family and friends had on me, I felt like that was something that was missing with my children. And I had an opportunity to go back home and present them with the same opportunities that I had and I chose to do that.

Q. And at some point, did you work for the Huntington Police Department?

A. I did.

Q. How did that come about?

A. They needed a Police Chief. And in 2007 I had the, the honor of being selected to be the Police Chief in Huntington.

Q. How long did you serve as the Police Chief in Huntington?

A. Just, just a few months shy of seven years.

Q. During that time, did you serve on any executive boards?

A. I did. I served on the Appalachia HIDTA Executive Board.

Q. What is Appalachia HIDTA?

A. It's -- it stands for high intensity drug trafficking area and it's, it's a group that is primarily responsible for analysis and funding for drug initiatives and strategic planning for drug operations and drug task forces in multiple states.

Q. So as Chief of the police of -- Chief of Police for Huntington Police Department, what was the oversight that you had?

A. I was in charge administratively and operationally of everything that happened with the Huntington Police Department.

Q. Who did you report to?

A. The mayor.

Q. And how many mayors did you report to over the span of your seven years?

A. Three.

Q. After serving for the Huntington Police Department --

and we'll come back to that -- did your career take you other places?

A. Yes, it did.

Q. And did it take you to the place that you are now?

A. It did.

Q. And where are you currently?

A. In 2014 I was selected to be the Police Chief in Columbia, South Carolina.

Q. Now, going back to your tenure as Police Chief for Huntington, that was 2007; is that correct?

A. Yes.

Q. All right. While you were there, what was the mission of the Huntington Police Department?

A. To prevent and investigate crime.

Q. Was keeping the public safe a forefront of one of your priorities while Chief?

A. Serving the public, enforcing the laws, doing things with integrity, making constitutionally correct decisions, treating people with empathy and respect, that was our mission in keeping our citizens safe.

Q. And when you first stepped on the scene as Police Chief in 2007, do you recall what types of drugs were in the area?

A. Yes. When, when I first became Police Chief, we had a number of challenges. One specific challenge was tackling our drug problem in the city. We had open-air drug markets

and we also had a significant issue with opioids and prescription pills.

Q. And, generally speaking, when you talk about drugs in the community, is there associated crime with that?

A. There is.

Q. Is it fair to say on a high level the Huntington Police Department has various bureaus and sub factions within the department?

A. Yes.

Q. As Chief, did you oversee all of these departments?

A. I did.

Q. As Chief, would you hold meetings and collaborate with these various bureaus and departments?

A. Yes.

Q. As Chief, would you obtain reports to see what types of drugs were in the area and what was going on with crime in the city?

A. I would.

Q. And at your direction as Chief, what types of reports did you have generated that spoke to the types of drugs and crime in the community?

A. We would have incident reports, initial reports when officers respond to scenes of crimes. We would have reports of interviews. We would have field, field contacts. And we would have confidential informant interviews and reports.

Q. Were you a part of those processes?

A. Yes.

Q. And did you task anyone in particular in the department with tracking drugs and crime in the area?

A. Well, yes, I did.

Q. Okay. Tell the Court about that.

A. We, we would multi-task as an executive staff. At the time, I had a lieutenant by the name of Hank Dial that did a lot of my analysis in terms of crime statistics and maintaining those statistics and analysis.

And then at some point during my tenure, we actually hired an analyst that had, that had training, analytical training. And that individual's name was Scott Lemley.

Q. And, so, Scott Lemley would track and analyze the data as it relates to drugs and crime?

A. Yes.

Q. And would you rely on that data?

A. I would.

Q. When you stepped in as Chief, was part of the department's job to interdict and seize drugs and drug activity in the community?

A. Yes.

Q. And whose job was that?

A. Well, I had the ultimate responsibility for establishing the mission of our department, our philosophy

and the direction that we would follow. And then I would, I would direct subordinate personnel to address the problems we identified as our emerging threats.

Q. And did the Huntington Police Department officers, in fact, work to interdict and seize drugs in the community?

A. Every day.

Q. I want you to describe for the Court, Chief Holbrook, the evolution of what you saw from 2007 when you first became Chief to 2014 when you left.

A. Well, as I, as I briefly mentioned, when I became Police Chief, it was evident that it was not the same city that I grew up in. There was, you know, clear evidence of open-air drug markets. What I mean by that is somebody standing on the street corner flagging cars down, selling, making hand-to-hand drug transactions.

But at the same time, what we were also seeing was just an incredible volume of finding people in possession of prescription pills.

And when I say they were in possession of prescription pills, not necessarily standing on the corner selling them, but in possession of prescription pills for personal use.

Q. And when you talk about hand-to-hand transactions and drug market, open-air drug markets, was any particular drug associated with that?

A. It, it was a variety of drugs. Our -- a lot of our

focus as we tackled the open-air drug market was focused on crack cocaine.

Q. And was there an issue with crack cocaine within the City of Huntington at the time?

A. That was one of our issues. And it was an issue because of the violence that was associated with it.

Q. And where was it an issue within the city?

A. Primarily in the Fairfield neighborhood of Huntington.

Q. Okay. You spoke about pills, and I believe observing pills on individuals. Could you tell the Court a little bit more about what you were seeing during that time period and when it was?

A. It was prescription pills, pain pills, opioids. And, again, as we would come across individuals through the course of, you know, daily operations, traffic stops, calls for service, investigations, we would encounter people, again, with personal use amounts of pills.

And early on in 2007, that was not something that we would find on our, what we would consider our street-level drug traffickers. We were finding the illicit drugs such as crack cocaine especially. And that's -- again, that's where our focus was.

Q. So from the years 2011 to 2014, what drugs were you primarily seeing in your community?

A. It had kind of evolved into probably three drugs and,

again, at different periods. A lot was predicated on enforcement action, prevention action, regulatory action. But it was crack cocaine, prescription pills. And then late in my tenure, it graduated to heroin.

Q. And was there a presence of drug trafficking organizations in the community at that time where opioids were prevalent?

A. Yes.

Q. And as Chief of Police, did you determine what was driving that activity?

A. Yes.

Q. Could you tell the Court what that was?

A. What was driving the activity of the drug trafficking organizations?

Q. Yes.

A. It was -- in my opinion, you know, the prevalence of drugs depends on demand, supply and demand. And there was an outrageously strong appetite, demand for drugs in Huntington. And we had an addicted population unfortunately.

Q. And the addicted population, was there any drug that was more prevalent in terms of addiction in the community at that time?

A. As far as addiction, it was, it was clear that it was an opioid addiction that was driving, that was driving that.

It, it -- oftentimes it was, you know, hand-and-glove with the crack cocaine distribution.

But we, we did a pretty good job eradicating the open-air drug market in that, you know, how we had to change some of our strategies on how we would address the opioid epidemic after we had some success with our open-air drug markets.

Q. Now, in comparison to the issue that you had with crack cocaine in primarily the Fairfield area, could you explain to the Court how that differed from the opioid issue that you were facing?

A. The, the issue in Fairfield was multi-layered. Again, you had dealers standing on the corner. You had prostitutes that would be in the area. You had a lot of dilapidated housing, vacant housing. You had quality of life issues. You had some convenience stores nearby that catered to that vulnerable population.

And there was food stamp fraud, WIC card violations going on where people would trade, you know, their cards, their food stamps for, for money, 50 cents on the dollar if you will. They would sell single cigarettes, a lot of single malt beverages and drug paraphernalia that would facilitate somebody smoking crack cocaine.

It -- and then on top of that, you, you had the robberies that would occur because of the drug transactions,

being outside and going on.

Q. And as compared to the opioid epidemic that you've described, how was that different?

A. The opioid epidemic, again, was more widespread in terms of it went from one end of the city to the other and it, it really affected people from all walks of life.

It, it didn't matter where you, you know, where you lived, what color your skin was, or how much money you made. People were focused on fueling their, their addiction. And, again, independent of an open-air drug market, there wasn't traditional drug trafficking trends that were going on at that time.

Q. And when you say there weren't traditional drug trafficking trends, what do you mean by that?

A. What I mean by that is typically you would go to the street corner and buy your illicit drugs, you know, a hand-to-hand or go down an alley and buy it.

But in this situation, people were having -- or they were obtaining drugs through various means or -- they were obtaining opioids through various means. Oftentimes it was -- it would start innocently with somebody visiting a doctor for an ailment. But we had people obtaining opioids through doctors and pharmacies.

And then their -- once the addiction would start, there was an appetite to continue to fuel that and get more pills.

And they were -- they would use means that, you know, really were limited to their imagination.

Once, once the pills were obtained, you know, through legitimate reasons, you know, they were often diverted. They were traded, sold. There would be -- or they would be stolen. There would be break-ins from people seeking drugs from medicine cabinets.

Q. And did diversion of prescription opioid pills become prevalent in the Huntington community?

A. Very prevalent.

Q. And over what years did you see that increase in diversion of prescription pills of opioids?

A. During my entire tenure.

Q. And during this time, were overdoses increasing? Were there overdoses? I'll ask that question first. During this time, were you experiencing opioid overdoses?

A. We were. And they continued to increase again from, from -- throughout my entire tenure.

Q. And in 2007, for instance, when you first stepped on the scene, was heroin a big problem in Huntington?

A. No.

Q. And by the time you left in 2014, had that changed?

A. Dramatically.

Q. And while serving as Chief of Police, did you identify any emerging threats in the area in your community?

A. Yes.

Q. And why did you do that?

A. We, we did that in order to make strategic decisions on where we would put resources and, you know, the measures that we would prioritize to protect our community and respond to issues that would affect our, our citizens.

Q. And were one of these emerging threats diversion, as you've just described, of prescription opioids?

A. Yes.

Q. Did Huntington Police Department endeavor to combat diversion of prescription opioids in your community?

A. Yes.

Q. How did you go about doing that?

A. Well, we, we made that one of our focuses just, just like we would address any, any drug of choice, prevalent drug of choice that was being abused. We did that through education and prevention, enforcement, and treatment.

And we really -- our, our most, I guess, influence would be on the education and, and prevention and then enforcement. And we restructured our drug unit. We created assets that focused on street level. And then we had a multi-agency approach to targeting drug trafficking organizations. And then we also assigned somebody to a tactical, a DEA tactical diversion squad specifically to look at pharmacies and doctors that may be prescribing pain

medications irresponsibly.

Q. And are you familiar with any pharmacies or doctors that you all investigated for diversion?

A. Yes.

Q. Could you tell the Court about that?

THE COURT: Mr. Mahady.

MR. MAHADY: Your Honor, good afternoon.

I object on foundation grounds for any testimony about specific investigations or police reports that the Chief was not involved in.

The Chief testified at his deposition that he was not personally involved in any investigations in Huntington. As he said, he was the Police Chief.

When he was asked if he oversaw investigations, diversion of pills, he said, and I quote, "I wouldn't even say I oversaw diversion of pills. I was the Police Chief. I, you know, I was, you know, at the 10,000-foot level. I would be briefed on, you know, investigations, status investigations but, you know, I was not directing investigations."

When he was asked if he specifically oversaw any investigations of diversion while he was the Police Chief, he said, "No."

We have encountered this issue with an analogous witness. And that was Chief Zerkle, or Sheriff Zerkle.

During Sheriff Zerkle's examination, the plaintiffs sought to elicit a very similar opinion about specific investigations where he lacked personal knowledge.

THE COURT: Who is Sheriff Zerkle and when did he testify?

MR. MAHADY: Sheriff Zerkle testified on May 27th and he was the Sheriff of Cabell County for a period of time.

THE COURT: And what was the proceeding he testified in?

MR. MAHADY: This one, Your Honor, on May 27th. And when the plaintiffs --

THE COURT: Oh, yeah, I remember him now.

MR. MAHADY: He was hard to forget.

THE COURT: Too many witnesses in this case. It's 10 after 4:00.

MR. MAHADY: He was hard to forget, and he also was in uniform.

But when the plaintiffs sought to elicit very similar testimony about specific investigations where he lacked personal knowledge, my colleague, Gretchen Callas, objected on grounds of foundation and you sustained that objection.

Now, when Chief -- Sheriff Zerkle was being questioned on cross-examination by McKesson, Sheriff Zerkle was shown a document that he was on and asked questions about a specific

investigation where he said he was not personally involved.

The plaintiffs in that case objected and said he didn't work on that case, and they objected on foundation grounds. And Your Honor sustained that objection as well.

So to the extent that the plaintiffs are going to ask him questions about investigations where he was not personally involved, which he has already testified in his deposition he wasn't involved in any of them, we object.

We also would object that there's hearsay. Everything he knows about these investigations is hearsay and we don't think they can overcome that.

THE COURT: Well, what about that?

MS. LEYIMU: Well, first, I believe this is appropriate for cross-examination. I don't even think I got a chance to ask a question first. I think you're preemptively objecting that I'm not going to lay the foundation to ask about a specific police report which I don't intend to do.

So my question was pretty basic. It was as Police Chief, and I believe as Police Chief, Chief Holbrook can talk about what he oversaw and what he knew, what he observed during the course of his role of Huntington Police Department.

MR. MAHADY: Your Honor, I believe the last question referenced specific investigations, and that's what

prompted the objection.

THE COURT: How is this different from the box I got myself in with Sheriff Zerkle?

MS. LEYIMU: I don't think you put yourself in a box, Your Honor. And it was a pretty innocuous question to be honest. As a Police Chief, it's no surprise that a Chief might have knowledge of investigations that his department is investigating.

So it's pretty broad. So if he, if he has any knowledge, he can answer that. If he doesn't have knowledge, we move on.

MR. MAHADY: Your Honor, he does not have personal knowledge of these investigations as he himself testified at his deposition.

MS. LEYIMU: I don't know what "these investigations" are. It's very vague.

THE COURT: I'm looking for my notes on Mr. Zerkle.

MR. MAHADY: Your Honor, and if it helps, it was May 27th, Sheriff Zerkle -- and the section of the transcript, at least with the plaintiffs' objection, was Page 172 to 175.

MR. MAJESTRO: Your Honor, to the extent this is a hearsay objection, Rule 803(8)(A)(ii) we believe would govern, a matter observed while under a legal duty to

report, but not including, in a criminal case, a matter observed by law enforcement personnel.

So to the extent Mr. -- the witness can testify about the things that he has learned as Chief that -- and I believe that was -- Mr. Zerkle was my witness.

We're not asking for specific conversations, those sorts of things. I think the best way to proceed would be to let us do it on a question by question basis, and we can elicit the foundation for a particular statement. This preemptive objection Mr. Mahady is making we believe is premature.

THE COURT: Well, I think I'm going to let you go ahead and then I'll, I'll go back and review what I ruled about Zerkle and then decide whether to consider it or not.

But I think I'll take the testimony subject to your objection, Mr. Mahady.

MR. MAHADY: Your Honor, if we do reach a point where they're trying to use specific documents, can I renew my objection at that time?

THE COURT: Yes, absolutely.

MR. MAHADY: Thank you.

THE COURT: Go ahead, please.

BY MS. LEYIMU:

Q. Well, Chief Holbrook, are you aware of investigations as it relates to the department that

you're overseeing?

A. Yes. I would elaborate if I might, Judge.

THE COURT: Yes. Go ahead.

THE WITNESS: We often refer to an investigator when they're working a case as the case agent, the person that's responsible for reducing that case to writing for presentation ultimately in court possibly.

When I -- I did not participate in investigations in that, in that manner. I am a very involved Police Chief. I was then and I am now. The drug unit reported directly to me. I was intimately involved with knowledge of -- working knowledge of drug cases that were under my purview.

And, so, I -- again, I have knowledge of drug cases, maybe not every single one, but I certainly have a lot of working knowledge of drug cases that occurred during my tenure in Huntington.

BY MS. LEYIMU:

Q. It's an obvious question, but as Chief of Police why is it important for the drug unit to report to you the investigations that they're involved in?

A. Well, first of all, I want to make sure everybody is doing the job that they're supposed to be doing and that we have checks and balances to make sure not only that we're doing our job, but we're doing it with integrity and correctly.

And, so, it's a layer of oversight that we have. And then I want to make sure that we are, you know, working in the direction that we, that we've established as our strategy to combat a problem.

Q. So, for instance, if you're trying to combat a problem and it's an opioid problem, would you be interested in investigations and what the department is doing to eradicate that problem in the community?

A. Yes. I would want to make sure that we're, we're conducting investigations on opioids.

Q. And do those investigations include ones that people on your unit were involved in as it relates to diversion?

A. Yes.

Q. Does that include diversion doctors were involved in and pharmacies were involved in?

A. At times it would start with us, yes.

Q. Could you tell the Court about what you recall about investigations that you oversaw as Chief in terms of talking to and communicating with your drug unit in the community?

A. Yes. Often times, especially with diversion, an investigation would start with a call to a tip line, a pharmacy calling, a traffic stop and finding prescription pills in somebody's possession and they not have a legitimate prescription, or they would have one and you would find multiple pharmacies or doctors they had been to.

So you would see some evidence where it looked like maybe a pharmacist or a doctor potentially was, again, distributing, prescribing drugs, opioids irresponsibly. We would assign that for follow-up.

And they would -- investigators would look into that matter and decide if it's something that was within their capacity to work or something that they would pass off to our federal, state or federal partners.

Q. And do you recall any pharmacies in the area that that was true for?

A. Yes.

Q. Could you tell the Court?

A. In the, in the City of Huntington specifically we had a pharmacy on Fourth Avenue, I believe it's called SafeScript, that, that we initiated an investigation.

MR. MAHADY: Your Honor, I'm going to renew my objection at this time.

He testified specifically that he had no personal involvement in any of these investigations. I will also note now, because I do think it's important, that when he was asked directly, "Did you know of any investigations of pharmacies in Huntington," he referenced a completely different pharmacy and did not mention SafeScript at all.

So I don't know how we've gone from his deposition where he identified A-Plus Pharmacy to now identifying

SafeScript Pharmacy. And that's the problem. He does not have personal knowledge. And he testified explicitly that he lacks personal knowledge.

MS. LEYIMU: Your Honor, I believe that is right for cross-examination and this is completely improper.

And also he -- as we've just laid the foundation for, the Police Chief is clearly aware of investigations that his people on his drug unit are investigating in the community in their efforts to combat the opioid epidemic.

MR. MAHADY: Your Honor, we took his deposition to see if he had this type of knowledge. We asked him repeatedly, "Do you have this type of knowledge? Do you have this type of personal involvement?"

And he was very clear. He has a 10,000-foot level of knowledge. Those are his words, not mine. He does not have personal knowledge. He cannot meet the requirements of Rule 602. He disavowed this. He can't now come into trial months later and testify about investigations he had nothing to do with, that he never disclosed. We are incredibly prejudiced now.

THE COURT: I'm going to take the testimony and you can cross-examine him on this and then I'll decide whether and to what extent I'm going to consider it. And I want to go back and review what I did with Sheriff Zerkle. Believe it or not, I do remember now some of his testimony

and there's nothing in my notes about me sustaining this type of an objection. I'm sure it happened. You say it did and I believe you. But I need to go back and review his testimony.

MR. MAHADY: Thank you, Your Honor.

THE COURT: Go ahead.

BY MS. LEYIMU:

Q. Chief Holbrook, as a part of your role as Chief, was it your role to keep abreast of and inform the community regarding emerging threats to the community?

A. I feel like that was my responsibility.

Q. And how did you become aware of what the emerging threats were to the community as Chief?

A. Based on calls for service, reports and interviews, community meetings, all that taken, taken together would identify problems and threats and help us form a roadmap or strategy for attacking it.

Q. And did you issue any reports describing these emerging threats?

A. Yes.

Q. What were those reports?

A. We actually produced what we refer to as Threat Assessments and Strategies. And then we also did annual reports.

MS. LEYIMU: Your Honor, may I approach?

THE COURT: Yes.

BY MS. LEYIMU:

Q. Chief Holbrook, I have just handed you two reports, the 2012 HPD Threat Assessment and Strategy Summary which is P-41374, and the 2014 Threat Assessment and Strategy which is P-41527.

Do you have both of those?

A. Yes, I do.

Q. All right. So you recognize these documents?

A. I do.

Q. What are these documents?

A. These are two Threat Assessment and Strategy documents produced at the Huntington Police Department.

Q. Okay. And did you author these documents?

A. I did.

Q. Both the 2012 and the 2014?

A. Yes.

Q. And were these Threat Assessments kept in the normal course of business at the Huntington Police Department?

A. They were.

Q. What was the purpose of these documents?

A. Again, to allow us to analyze our problem and make tactical decisions on how we would address and mitigate the problem.

Q. Did they set out the activities of the Huntington

Police Department?

A. Yes.

Q. Did they set out your strategic plans and investigations?

A. Yes.

Q. And were these reports reviewed by police officers in your department?

A. They were.

Q. And were these Threat Assessments utilized and relied upon by the Huntington Police Department --

A. They were.

Q. -- in carrying out their work?

A. Yes, they were.

Q. And did you share these with anyone?

A. We shared them internally and externally. We shared them with elected officials and our citizens as we attended meetings throughout the city.

MS. LEYIMU: Your Honor, at this time I'd move to admit these two Threat Assessments, P-41374 and P-41527, into evidence.

THE COURT: Were you directed by the mayor or any other authority specifically to make these reports?

THE WITNESS: No, sir. This is something that I did.

MS. WU: Your Honor, we object on hearsay grounds

to the admission of both documents which have been introduced.

MS. LEYIMU: Your Honor, pursuant to 803(8), I believe, these are public records that set out the office's activities.

MS. WU: Your Honor, these --

MS. LEYIMU: They're --

MS. WU: I'm sorry.

THE COURT: Was he under a legal duty to report?

MS. LEYIMU: As a police officer -- as a police department, yes, Your Honor, I would say, yes, legal authorized duty to report. These are factual findings from a legal authorized investigation.

MR. MAJESTRO: Your Honor, if I might add, (8)(A)(i), this requires it to be the office's activities. The other, (ii) and (iii) are disjunctive. It's not -- they don't have to meet all of the requirements.

THE COURT: You're saying they're not -- they're exclusive and not inclusive? (I), (ii), and (iii)?

MR. MAJESTRO: (I), (ii), and (iii) you only have to meet one of them.

MS. WU: Your Honor, the portion of the rule that Mr. Majestro is referencing relates to activities of a public office. The documents that are being introduced are Threat Assessments. They do not summarize the activities of

the police department. There are other documents that do that. Those are the HPD reports that have already been introduced into evidence.

And for that reason, we don't believe that these records, the Threat Assessments, meet any hearsay exception.

MR. MAJESTRO: The witness testified the act of conducting the threat assessment is an activity of the department.

THE COURT: Well, I'm going to conditionally admit them at this time and look at the law and decide whether to any extent I'll consider them. But I'm going to conditionally admit them and let you go ahead at this point.

MS. LEYIMU: Yes, Your Honor.

BY MS. LEYIMU:

Q. Chief Holbrook, do these Threat Assessments outline and set forth the goals of the Huntington Police Department?

A. Yes, a strategic goal.

Q. And do they summarize investigations that you were legally authorized to carry out in the Huntington Police Department?

A. I don't know that these documents summarize the investigation. They, they take the results of investigations and outcomes and it's what allows us to forecast.

Q. And does it inform the work that you do?

A. Yes.

Q. And, again, what is the purpose of putting this together?

A. Again, it's a process for us to analyze a problem and develop a strategy to, to attack the problem.

Q. And that is part of the role of the Huntington Police Department in the community?

A. To prevent and solve crime and address crime disorder in the community.

Q. Now, in these Threat Assessments could you advise the Court what were the main take-aways? Let's start with 2012. Do you recall what you were trying to communicate in these Threat Assessments?

A. I think first we established that there was an opioid problem nationally. And then on the local level, we were also experiencing a similar trend and that, you know, we had an addicted population that was a vulnerable population and, and we had drug trafficking organizations that were taking advantage of that vulnerable population. And then we had citizens that were addicted that were seeking, you know, seeking more of the opioids through, you know, various means to include, you know, seeking doctors and pharmacists again that would distribute irresponsibly.

Q. And what were the emerging threats to the community

that were outlined in the 2012 and 2014 report?

A. What we started seeing in 2012 was we were beginning to have some success with disrupting some of the flow of opioid prescription drugs, and we were seeing those that were addicted turn to heroin.

And as a result of that, the, the pills that those that were addicted were used to taking, you know, they knew exactly what that pill would do to their body when they ingested it.

As they turned to heroin, it was really a mixed bag, a trick bag. Heroin was cut with, you know, different cutting agents or the purity levels were just really all over the place and it was leading to overdoses. The people survived from overdoses that some, that proved to be fatal.

Q. And was it a part of your role as Chief of Police to identify what drugs were most prevalent in the area?

A. Yes.

Q. Was it part of your job to identify what drugs were a threat to your community's health and public safety?

A. Yes.

Q. And were you doing that in these Threat Assessments?

A. Absolutely.

Q. And in 2012, if you'll turn to Page 2, the third paragraph says, "Heroin has also become an emerging threat to our community due to the availability and affordability

of the drug."

Do you see that?

A. Yes.

Q. And is that consistent with what was going on in the community in 2012?

A. Yes, it was.

Q. Okay. Could you tell the Court a little bit more about that? Why was that happening?

A. The opioid pills were expensive. And depending on the disruption with, with distribution of the pills, people were turning to a less expensive alternative which was heroin. And, again, that was leading to --

THE COURT: Just a minute, Chief.

MS. WU: Objection. We object to the testimony on foundation grounds. The witness is testifying as to the motivations of individuals in the community.

THE COURT: Well, right now it's objectionable.

Can you lay a foundation for it?

MS. LEYIMU: Sure.

BY MS. LEYIMU:

Q. Was it part of your role as Police Chief to understand --

MS. LEYIMU: I think I did lay the foundation because I asked --

THE COURT: Maybe you did.

BY MS. LEYIMU:

Q. Yeah. I believe I asked was it part of your role to understand what were the prevalent drugs in the community?

A. Yes.

Q. Was it part of your role to understand what the drug trends were?

A. Yes.

Q. Was it part of your role to understand what the trajectory of drug trends were?

A. Yes.

Q. How did you do that?

A. Through analysis, through investigation, through interviews, through seizures.

Q. Okay. And as a result of that, did you form an understanding --

THE COURT: Overruled. You can answer.

BY MS. LEYIMU:

Q. And I believe you were talking about transition that people were having in the community that you saw in your investigations through the ways that you have laid out from prescription pills to heroin, is that correct, when we left off?

A. Yes.

Q. And tell us about -- as a police officer, is it

important for you to know about the price of drugs and what they're going for?

A. Yes.

Q. Explain that to the Court, please.

A. Well, illicit drug trafficking is all about supply and demand. And, you know, we, we do pay particular attention to what, what the going cost is for a particular drug. That can have consequences with respect to drug trafficking organizations and territory and retaliation.

And then with, with respect to the opioids, we, we knew that as prices would go up -- you know, at one time it was about a dollar a milligram -- that folks would not be able to pay that and they would turn to cheaper alternatives. And there was great risk with some of those cheaper alternatives, heroin being one of them.

Q. In the 2014 Threat Assessment were you kind of doing the same analysis?

A. Yes.

Q. Okay. And the cover letter on the front, was that authored by you?

A. It was.

Q. Who was that authored to?

A. The mayor and City Council.

Q. Okay. On the second line it says, "This report is the most important document I have ever prepared for your

review."

Do you see that?

A. I do.

Q. And why were you communicating that to the mayor?

A. I've been a police officer for 30 years, and at that time in the mid -- 25 years. I saw my town being decimated by addiction.

And as I saw the addiction explode, I also saw our drug seizures exploding. The pills continued to -- our pill seizures were going up and the overdoses were going up, but we were also seeing property crime go up.

So all the correlations were there and we were on a trajectory that I did not think we could sustain. And I was trying to be writing an impactful and meaningful document that would reinforce to our elected officials that we -- that our number one priority had to be public safety in addressing this threat as a community.

Q. You saw this coming? This threat to the community, you saw this coming?

A. I was living it.

Q. If you turn to Page 2 on the 2014 report, I'm going to ask you about something quickly.

In the box there it says, "A long-standing organization the Neighborhood Institute is comprised of 12 neighborhood organizations that work with the Huntington Police

Department to identify and solve problems."

Do you see that?

A. Yes.

Q. Could you tell the Court a little bit about the Neighborhood Institute, what it was and what its purpose served?

A. Sure. Huntington had a number of neighborhood associations, as most cities do. And the Neighborhood Institute brought the leadership from each one of those neighborhood associations together and allowed us to network and address issues collectively with all the neighborhood associations and, again, hear from them on what their problems were, hear from them on what their expectations were from the police department, and also for us to educate and share information with the neighborhood associations to share with the citizens in their neighborhoods.

Q. And would that be an example of community policing?

A. Absolutely.

Q. And was that helpful in your efforts combating the opioid crisis in the community?

A. I think it's probably been the most important thing that we could ever engage is our citizens.

Q. On the back end on Page 11 of the 2014 report -- or it might just look like the back. You have a vision and mission statement. Do you see that?

A. Yes, ma'am.

Q. Right above it, the paragraph before says, "Heroin distribution and abuse in Huntington grew significantly in 2013."

Does that comport and is that consistent with your understanding of what was going on in the community at that time?

A. Yes.

Q. The next sentence says, "This is a direct result of the predominant prescription drug threat in the Appalachia region."

Do you see that?

A. Yes.

Q. "West Virginia, specifically Huntington, is at the center of this particular threat."

Do you see that?

A. Yes.

Q. And is that consistent with what you experienced, saw, and observed in your role as Police Chief for the City of Huntington?

A. Yes.

Q. Did the Huntington Police Department develop or engage in any initiatives to combat the opioid epidemic? You talked about the arrests and the investigations and the interviews and the seizures. Any other initiatives that you

took on to combat the opioid epidemic in the community?

A. Well, there was a number of strategies we employed. First of all was taking a collaborative approach to the problem. What I mean by that is relying on our partnerships with our state and federal partners.

We, we participated in -- we worked alongside every one of our federal partners. They were often times embedded in our police department. So we had initiatives with each individual task force. And we also had association and alignment with what we mentioned earlier, Appalachia HIDTA.

And that -- again, that's how we established investigative strategies and were able to work specifically on drug trafficking organizations or, or distribution networks involving prescription drugs.

Q. And what about prevention efforts? Were you involved in any prevention efforts to combat the prescription drugs that were posing as a threat to your community?

A. I was.

Q. Could you tell the Court a little bit about that?

A. At the direction of, at the time, the United States Attorney for the Southern District of West Virginia, I participated in a public service announcement. And we also spent quite a bit of time visiting schools, talking to our young adults. We promoted our drug take-back program, again trying to educate of the dangers and the severe consequences

of the opioid addiction and, again, talked about the importance of prevention.

Q. When you left the city in 2014, was the City of Huntington in the midst of an opioid epidemic?

A. Yes.

Q. And, Chief Holbrook, could you tell this Court over the span of time that you served as Chief of Police in Huntington, your home and service, what has been the impact of the opioid epidemic on the community?

A. When I -- when I started today -- it's a, it's a difficult topic for me to really talk about, Judge. I probably didn't do it service when I said just how wonderful it was growing up in Huntington.

You know, yes, I was blessed to have wonderful parents and family and great friends. Just the quality of life in Huntington was incredible.

What I saw happen during my time as a Police Chief was something that it really has affected me just profoundly. There was not one person through some connection -- there was no degree of separation by the time I left Huntington that a friend, family, neighbor had not been touched by this problem, had not lost a loved one, had not, you know, reached financial ruin because of their efforts to address an addiction problem with a loved one.

I saw friends that I went to school with and grew up

with, I attended funerals for their children. It was difficult going to crime scenes. My, my children, they, they lost friends. I've never seen anything in what I consider to be a distinguished law enforcement career where -- I don't know everything, but I've had the privilege of experiencing a lot.

My -- almost my entire career, besides being a Police Chief, was investigating drug trafficking organizations, organized crime and violent crime. I've policed from one end of North Carolina to the next with the State Police. I worked in a major city in Charlotte. I've been in Columbia for seven years.

And I've never experienced anything like what I saw when I left Huntington. And, and those challenges remain today. But it had an everlasting impact on me personally and professionally.

Q. Thank you, Chief Holbrook. I have no more questions.

THE COURT: You may cross-examine, Mr. Mahady.

MR. MAHADY: Thank you, Your Honor.

CROSS EXAMINATION

BY MR. MAHADY:

Q. Chief Holbrook, nice to meet you. My name is Joe Mahady.

Chief Holbrook, you personally didn't investigate anything in Huntington as Police Chief; correct?

A. I'll explain again. As I just stated, the majority of my career has been in investigations. I'm a very hands-on Police Chief.

When -- it's subjective in how you're asking me if I investigated. I was not the case agent on investigations as a Police Chief, but I had oversight and responsibility for everything that went on at the police department. I was very inquisitive about major investigations and drug investigations and that unit reported to me. So I had knowledge about investigations.

Q. Your knowledge was at the 10,000-foot level; correct?

A. I, I used that statement, yes, sir.

Q. That's a correct statement, though?

A. My knowledge is -- would be, again, not boots-on-the-grounds necessarily conducting the interviews, but maybe with a suspect or making an arrest, but being briefed on the nature of the investigation and the, you know, significant events that may have, or seizures that may have occurred in an investigation.

Q. Okay. Thank you. But you personally, you were not the individual conducting the investigation; correct?

A. I was not the case agent on an investigation, correct.

Q. And you personally were not the individual conducting investigations of any doctors or pharmacies in Huntington; correct?

A. As I said, I was not a case agent on any investigation.
Q. So the answer to my question is "yes"?
A. The answer would be "no."
Q. You were not personally involved in these investigations; correct?
A. That's correct.
Q. And you personally did not have direct oversight of any investigation into the diversion of pills; correct?
A. I had direct oversight of the folks that worked for me.
Q. But you yourself did not directly oversee any specific investigation into the diversion of pills in Huntington; correct?
A. Again, I'm going to repeat what I told you initially. I have knowledge of the major investigations that went on at the police department, whether it was major crimes or narcotics investigations. So if one of those investigations would have been a diversion investigation of significance, then, yes, I would have had knowledge of that investigation.
Q. And while I appreciate that you had knowledge, you were not directing the investigations; correct?
A. I stated earlier that I, I was not the case agent on any investigation.
Q. And you did not direct them in an oversight role either; correct?
MS. LEYIMU: I'm going to object. This has been

asked and answered, Your Honor.

THE COURT: Sustained. I believe it has been asked and answered.

BY MR. MAHADY:

Q. Do you recall giving a deposition in this case?

A. Yes, sir.

Q. Okay. And was that deposition on -- make sure I have the right date here -- July 22nd, 2020?

A. I think so, yes, sir.

Q. Okay. And did you testify truthfully at that deposition?

A. Yes, sir.

Q. Okay. I would like to pull up your deposition video, Page 52 starting at line 11.

(A video clip was played as follows:)

"During your time as Huntington Police Chief, were you involved in any investigations of diversions, diversion of pills?

A. Me personally?

Q. Well, let's start with you personally, yes.

A. I can just tell you me personally, I didn't investigate, you know, anything in Huntington. I was the Police Chief.

Q. Okay. So did you oversee investigations of diversion of pills?

A. I wouldn't say I oversaw diversion of pills. I was the Police Chief. I -- you know, I was -- you know, at the 10,000-foot level I would be briefed on, you know, investigations, status of investigations, but, you know, I was not directing investigations."

(Video clip concluded)

THE COURT: This is perfectly consistent with what he just testified to, Mr. Mahady. What's the purpose of this?

MR. MAHADY: Your Honor, I think --

THE COURT: How is this impeachment?

MR. MAHADY: Because he's trying to claim here today that he was overseeing with his direct role. I think in his testimony he was very clear it was not a direct role and that he was at a 10,000-foot level which I do think is inconsistent. I will move on. I just want to confer with my co-counsel for one second.

(Pause)

MR. MAHADY: I have no further questions, Chief Holbrook. Thank you.

THE COURT: Ms. Wu.

Let me ask where we're going here. Are we going to be able to finish Chief Holbrook today if we go past 5:00?

MS. WU: I will do my very best. I don't believe we should hold the witness over what could be a break.

THE COURT: Well, I understand he's not available tomorrow. Is that right, Mr. Farrell?

MR. FARRELL: Preferably he would like to return to Columbia, South Carolina. He has business to take care of.

THE COURT: Well, we don't even know whether we're going to be in session here. We have to switch court reporters at 5:00, but let's go ahead, Ms. Wu, and see how far we get.

MS. WU: I'm optimistic we can get the witness off the stand, Your Honor.

THE COURT: Okay.

CROSS EXAMINATION

BY MS. WU:

Q. Good afternoon, Chief.

MS. WU: May I proceed, Your Honor?

THE COURT: Yes, please.

BY MS. WU:

Q. My name is Laura Wu and I represent McKesson. I have a few questions for you. Thank you for being here today.

A. Yes, ma'am.

Q. Chief, during your time as Chief of Police in Huntington, the city was a well-known hub for distribution of illegal drugs; correct?

A. Yes.

Q. Heroin and other illegal drugs were often brought into Huntington from Detroit; correct?

A. Yes, at different -- different drugs at different times, yes, ma'am.

Q. In fact, Huntington was sometimes referred to as Little Detroit -- sorry. My microphone wasn't on.

In fact, Huntington was sometimes referred to as Little Detroit?

A. Yes, I've heard that statement.

Q. During your time as Police Chief, the officers who worked for you regularly arrested residents trafficking illegal drugs from Detroit into Huntington; correct?

A. Not regularly arrested Huntington residents, no.

Q. Let me try that again. HPD regularly arrested individuals from Detroit who were trafficking drugs into Huntington?

A. Yes.

Q. Drugs were also trafficked from other cities outside West Virginia including Columbus, Ohio; correct?

A. Yes.

Q. Now, I'd like to look at just one example of the work of your department.

MS. WU: Could we please have Defendants' West Virginia 1317?

Your Honor, may I approach?

BY MS. WU:

Q. Chief, you have in front of you a document which we've marked for identification as Defendants' West Virginia 1317?

A. Yes, ma'am.

Q. And this is a set of memoranda related to an operation titled "Operation Dirty Deeds." Do you see that?

A. Yes.

Q. The top page of the memo includes a memo from you which is dated December 14th, 2012; correct?

A. Yes.

Q. And if you would look with me to the first paragraph of your letter it reads, "On October 15th, 2012, R. Booth Goodwin, U.S. Attorney, Southern District of West Virginia, submitted a memorandum commending each of you for your outstanding performance during the Dirty Deeds OCDETF investigation. This case involved the prosecution of a number of local and out-of-state crack cocaine and oxycodone dealers which resulted in the dismantling of a major DTO and lengthy prison sentences for those involved."

Do you see that?

A. Yes.

Q. Chief, after commendation letters on Page 4 of this document, if you'll turn with me -- and, Chief, I'm using

the numbers in the left-hand corner of the document, the Defendants' West Virginia 1317.00004. Do you see that?

A. Yes, ma'am.

Q. Thank you. This Page 4 of the document includes a memo that you sent to then Mayor Kim Wolfe. Do you see that?

A. Yes.

MS. WU: Your Honor, I move to admit Defendants' West Virginia 1317 into evidence.

THE COURT: Is there any objection to this?

MS. LEYIMU: No objection.

THE COURT: Any objection?

MS. LEYIMU: No objection, Your Honor.

THE COURT: It's admitted.

MS. WU: Thank you.

BY MS. WU:

Q. Chief, if we can continue looking at Page 4 of the document, the first paragraph reads, "Beginning in 2008 the members of the HPD Special Investigations Division (Sergeant D. Booth, Corporal Shane Bills, Sean Hinchman, and Paul Hunter) and the FBI Violent Crimes Drug Task Force initiated an investigation of violent criminal activity involving a drug trafficking (DTO) operating in Huntington, West Virginia. The DTO was being controlled by Charles R. Burke and several of his criminal associates."

Do you see that?

A. Yes.

Q. And that was a true statement; correct?

A. Yes.

Q. Now, if we can look into the second paragraph still on Page 4, the second sentence reads, "According to one cooperating defendant, Burke was responsible for recruiting and bringing to Huntington at least 100 people to distribute crack cocaine and illegally diverted prescriptions."

Do you see that?

A. Yes.

Q. That was a true statement; correct?

A. Yes.

Q. And, so, the investigation and the results reported in your memos provide just one example of a DTO bringing both prescription pills and crack from outside of West Virginia into the Huntington community; correct?

A. Yes.

Q. Chief, you never found the origin of the prescription drugs that the criminals identified in this memorandum brought into the community? You just know they came from Detroit. Correct?

A. Yes. We had information -- we had knowledge of how they obtained it in Detroit, but not a singular, you know, source of supply if that was your question.

Q. Thank you, Chief. So now I'd like to talk about some of the drug trends that you described during your direct examination.

When you became the Chief in 2007, crack cocaine was the most serious drug problem in Huntington; correct?

A. It was very prevalent.

THE COURT: Let's take a short break. I need to relieve the court reporter here. And then we'll come back.

THE WITNESS: Yes, sir.

(Recess taken at 4:55 p.m.)

THE COURT: As of 5:00, the official word is that tomorrow is a holiday and the courthouse will be closed except I've been told by the clerk that if I want to keep it open, I can.

We can -- and I understand Chief Holbrook is the last witness on the plate for this week; is that right?

MR. FARRELL: Yes, Your Honor.

THE COURT: And I think we can finish him tonight, so we'll --

Chief, you can come up and take a seat.

THE WITNESS: Yes, sir.

THE COURT: So let's press on and we'll finish and go our -- do something else tomorrow.

MS. WU: Thank you, Your Honor.

BY MS. WU:

Q. Welcome, back, Chief. I'm going to be brief. I'm standing between us and a break.

So, before the break, we were talking about the early part of your tenure as Chief when crack cocaine was a problem in the City of Huntington; do you recall that?

A. Yes, ma'am.

Q. At that time when you became chief in 2007, most of HPD's drug investigations involved either cocaine or crack cocaine, correct?

A. Yes.

Q. And, in fact, you've been quoted as saying that, "Crack cocaine has been the root of all evil that has affected Huntington," correct?

A. I did make that statement.

Q. Chief, shortly after you became the Chief in 2007, and as you described earlier, Huntington started -- you started to see heroin overdose fatalities, correct?

A. Can you repeat that, please?

Q. Sure. Shortly after you became Chief in 2007, you started to see heroin overdose fatalities, correct?

A. Yes. We had a -- we had a brief spell of overdose fatalities.

Q. And when you are referring to a brief spell, are you referring to a particular overdose cluster of 14 individuals who overdosed in 2007?

A. I am. Yes, ma'am.

Q. Okay. Chief, you don't know when historically heroin first emerged in the City of Huntington, correct?

A. The Winter of 2007 was the first time I had experienced it in my -- in my time there.

Q. And you don't know if heroin had been present in the community prior to 2007, correct?

A. I saw no evidence of that when I --

THE COURT: Did you see any Mexican heroin on your watch?

THE WITNESS: Yes, sir.

THE COURT: You did? So, it not only came from Detroit, it came from Mexico, too?

THE WITNESS: Mexico was the point of origin and the only time that we saw the Mexican black tar heroin was this incident that she's referring to.

THE COURT: Just -- just one time, right?

THE WITNESS: Just one time with black tar heroin, yes, sir.

BY MS. WU:

Q. Chief, prior to your time coming to Huntington, you worked as a patrolman in the Charlotte Police Department in the 1980s, correct?

A. Yes.

Q. And during your time in that role in the 1980s, you saw

heroin being abused in Charlotte, correct?

A. I did.

Q. And you also worked as a narcotics detective assigned to Charlotte Douglas International Airport in the early 1990s, correct?

A. I did.

Q. And in the early 1990s, in that role, heroin was one of the primary drugs that you seized at the airport, correct?

A. No, it was not.

Q. Heroin alongside other drugs, such as cocaine and marijuana, was one of the primary drugs that you seized at the airport, correct?

A. The primary drugs that we seized when I was working interdiction was cocaine.

Q. Were there other prominent drugs that you seized at the airport, including heroin?

A. We -- we would occasionally make a heroin seizure but it was -- it was not prevalent.

Q. It was prominent? I'm just trying to use your words. Heroin was prominent when you worked at the airport in the 1990s, correct?

MS. LEYIMU: Your Honor, I'm objecting to this line of questioning. The witness has asked and answered and it's mischaracterizing his testimony.

THE COURT: Well, overruled. This is cross

examination and I'll let you go ahead, Ms. Wu.

MS. WU: Thank you, Judge.

BY MS. WU:

Q. Chief, was heroin one of the drugs that was prominent in terms of seizures when you worked at the airport in the 1990s?

A. We would seize heroin. By and large, the most prevalent drug we would seize was cocaine.

Q. Now, in response to the judge's question just a short while ago, you testified that the heroin that came into Huntington in 2007 originated in Mexico, correct?

A. Yes.

Q. And it wasn't until after the Police Department had taken care of that rash of heroin in 2008 that larger supplies of prescription pills came into the Huntington community, correct?

MS. LEYIMU: Object to the foundation.

THE COURT: Overruled. Go ahead.

THE WITNESS: I don't -- I would not agree with how you characterized that, no.

BY MS. WU:

Q. In terms of the sequence of time, in 2007, your department was focused on eradicating black tar heroin which had originated in Mexico and come into Huntington, correct?

A. No, ma'am. Initially, I testified today and in

deposition, our focus was on open air drug markets and there was a prevalence of crack cocaine. But I also stated that we just saw a surge in finding individuals with opioids.

Late in 2007, we had 14 overdose fatalities. And what was unique about that was they all were -- we were finding the packaging was the same and, after we did analysis of what was left over at the scenes that we were finding, we found that it was all connected and it was connected to one source in Mexico.

Q. And, Chief, after your department took care of that black tar heroin sometime in 2008, that's when larger supplies of prescription pills came into play and became the drug of choice, correct?

A. I don't -- I'm not -- I wouldn't say it the same way you're saying it, I guess, is how I'm answering that. I'm saying we had the prevalence of pills. However, our focus in 2007 was on open air drug markets.

We had a rash of heroin overdoses that we pivoted to, investigated, dismantled that organization. And then we -- we continued to address our open air market, you know, through 2008. And as we were doing this, we started seeing our pill seizures continue to grow.

MS. WU: And, Mr. Reynolds, could we pull up the Chief's deposition in this case from July 22nd, 2020?

BY MS. WU:

Q. Chief, you recall that you were deposed in the context of this litigation, correct?

A. Yes. Yes, ma'am.

Q. And could we please go to Page 107, Line 2, please? And the question reads, "What I'm saying is that -- is it your understanding, as described here, that after you kind of took care of the black tar heroin sometime in 2008, that's when the -- that the larger supplies of prescription pills came into play and became the drug of choice," and your answer is, "Yes."

Do you see that, Chief?

A. I do.

Q. And that was your testimony in July 2020, correct?

A. Yes.

Q. And you testified truthfully at that time?

A. Yes.

Q. Chief, by 2013, heroin had returned and become the number one threat to the City of Huntington, correct?

A. Yes.

Q. And when you left Huntington in 2014, heroin was still the greatest drug threat in the city, correct?

A. Yes, but to address what you just brought up and what you're saying now, crack cocaine never went away. You know, we -- so, when we talk about what is most prevalent, heroin and cocaine, there would be different times that there would

be more prevalence. The one -- the one constant throughout this, this time, was the pills.

Q. And it was the same criminal drug trafficking organizations which brought all of those drugs into Huntington, correct?

A. No, not necessarily. The pills came in -- they came to be in Huntington in a variety of ways but, most importantly, you referenced the 100 -- you know, the OCDETF case where 100 people were recruited to distribute in Huntington and, I mean, I think that is exactly the -- what we're getting at here is we were an addicted community. Why would you send 100 people to sell drugs in a community?

Q. Well, Chief, let me ask you some more specific questions so we can talk about that. So, much like the illegal drugs that you talked about, heroin and crack cocaine, drug trafficking organizations also trafficked prescription opioids into Huntington, correct?

A. At some point, they did.

Q. And those same drug trafficking organizations also brought counterfeit pills into Huntington, correct?

A. We did find counterfeit drugs at some point.

Q. And you know that drug trafficking organizations sometimes take heroin or fentanyl and press it into the shape of a prescription pill, correct?

A. Yes, I do.

Q. So, it's possible that someone in Huntington thought that he or she was taking a prescription pill, but was actually taking heroin or fentanyl, correct?

A. That would be possible.

Q. And drug trafficking organizations obtained prescriptions that they brought into Huntington in the cases that there were actual prescription pills through illegal means, correct?

A. Doctor shopping.

Q. And that's -- that's illegal? It's a crime?

A. Yes.

Q. So, you've talked about diversion. So, let's just, for the record, lay it out there. Diversion is a crime, correct?

A. Yes.

Q. And doctor shopping, as you said, is a form of criminal diversion, correct?

A. Yes.

Q. Forging a prescription is another form of criminal diversion, correct?

A. Yes.

Q. Theft of pills from someone's medicine cabinet is another form of diversion, correct?

A. Correct.

Q. And that's a crime?

A. Yes.

Q. Chief, there's nothing a pharmaceutical distributor can do to prevent pills from being stolen out of a medicine cabinet, correct?

MS. LEYIMU: I'll object on foundation. Calls for speculation.

THE COURT: Overruled. You can answer it, if you can.

THE WITNESS: I think indirectly there is.

MS. WU: Mr. Reynolds, would you please pull up the Chief's deposition from July 22nd, 2020? Could we please go to Page 168? And to Line 15, please?

BY MS. WU:

Q. And the question posed to you at your deposition was, "Would you agree that there is nothing that the distributor can do from having pills stolen out of a medicine cabinet once they are -- once they've left the pharmacy?" And you answered, "Yes, I agree that a distributor would have no control over theft of pills out of somebody's personal residence." Do you see that, Chief?

MR. MAJESTRO: Objection, Your Honor. That's a completely different question than the one she just asked.

THE COURT: I don't think it is and it is inconsistent, but it's kind of a so what, you know? It's not a major point.

Go ahead, Ms. Wu.

MS. WU: Thank you, Chief. I have no further questions at this time.

THE COURT: Does Cardinal want to question?

MS. JASIEWICZ: No questions, Your Honor. Thank you.

THE COURT: Do you have any re-direct, Mr. Farrell?

MR. FARRELL: Very briefly, if I can beg your patience and bring just a moment of levity into this long seven weeks of trial before we take our break.

THE COURT: Well, are we violating the one --

MR. FARRELL: No.

THE COURT: I can't keep straight.

MR. FARRELL: Yes, Your Honor. It's evenly -- that was the City of Huntington.

THE COURT: Yes, Ms. Kearse.

Mr. Farrell, you're legal. Go ahead.

MR. FARRELL: Yes, thank you.

REDIRECT EXAMINATION

BY MR. FARRELL:

Q. Chief Holbrook, nice to see you again. Your father was a longtime coach of Huntington East baseball, was he not?

A. Yes, sir.

Q. And do you know who his favorite left fielder was of

all time?

MR. MAJESTRO: Objection, Your Honor.

(Laughter)

MR. FARRELL: Seriously, Chief, thank you for coming up from South Carolina. We appreciate you coming in here and testifying before the Court.

THE COURT: Who was his favorite left fielder?

THE WITNESS: I don't think his last name was Farrell.

MR. FARRELL: No further questions.

MR. MAJESTRO: I can't even get the last objection sustained on my birthday.

THE COURT: Nobody moved to strike that answer.

(Laughter)

MR. FARRELL: It's true.

THE COURT: Was that you?

MR. FARRELL: It was me. I wasn't -- I wasn't his best player, but I was probably one of his favorites.

THE COURT: Okay. Well, Chief, we're going to let you go.

THE WITNESS: Thank you, Judge.

THE COURT: Thank you very much for being here and I wish you good luck in your -- in your job down in South Carolina.

THE WITNESS: Thank you, sir.

THE COURT: And you're free to go.

THE WITNESS: Okay.

THE COURT: Mr. Ackerman?

MR. ACKERMAN: Your Honor, I remembered this time before you walked off the bench. Ms. Christenson has some deposition designations to submit to the Court at this time.

THE COURT: Okay, that's fine. If there's nothing else to do today, I'll see everybody Monday morning, June 28th, at 9:00 to finish the plaintiffs' case. And on Friday that week, we'll take your witness, Mr. Schmidt, and then start the defense case and hope everybody enjoys the time off.

Excuse me. Oh, you need to do that on the record.

MS. CHRISTENSON: I do.

THE COURT: I'm sorry.

MS. CHRISTENSON: But I have the list written down.

THE COURT: You go ahead.

MS. CHRISTENSON: The plaintiffs submit Nathan Hartle's fact deposition, Staci Harper-Avilla, Matthew Strait, Eric Trevino, Nathan Elkins, Edward Hazewski and Lisa Mash. And that would be all.

THE COURT: All right.

MS. CHRISTENSON: That's it.

THE COURT: Is there anything else?

MR. HESTER: No, Your Honor. I would just state that the deposition designations are being submitted, of course, with our objections embedded.

THE COURT: I understand, Mr. Hester.

All right. We're adjourned until June 28th at 9:00.

SIMULTANEOUS SPEAKERS: Thank you, Your Honor.

(Court recessed at 5:17 p.m.)

CERTIFICATION:

I, Ayme A. Cochran, Official Court Reporter, and I, Lisa A. Cook, Official Court Reporter, certify that the foregoing is a correct transcript from the record of proceedings in the matter of The City of Huntington, et al., Plaintiffs vs. AmerisourceBergen Drug Corporation, et al., Defendants, Civil Action No. 3:17-cv-01362 and Civil Action No. 3:17-cv-01665, as reported on June 17, 2021.

S\Ayme A. Cochran
Reporter

s\Lisa A. Cook
Reporter

June 17, 2021
Date

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